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ABSTRACT

Although interest in and literature about career education for the handicapped has been growing very rapidly in the last few years, many professionals have been hard pressed to keep pace with the knowledge explosion in the field. This book is intended to aid teachers in acquiring up-to-date knowledge of career education for the handicapped and methods for implementing it in their classrooms. The book can be used in two ways: (1) as a theoretical framework for teacher educators and as a text in preservice and inservice programs; and (2) as a practical framework to show the classroom teacher how to implement career education for the handicapped. The book is divided into three sections. The first section, Theoretical Foundations, covers the concept and the rationale of career education for the handicapped. In the second section, Implementation, curriculum considerations for various degrees of handicapping conditions are dealt with and methods teachers can use to implement career education in the schools are presented. The third section, Issues, includes discussions on selected problems in career education for the handicapped. Each chapter concludes with a bibliography, and materials for use as inservice training handouts or transparencies are included in the appendix. (KC)

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Career Education For the Handicapped: Current Perspectives for Teachers

Editors:
Gary M. Clark
Warren J. White

U.S. DEPARTMENT OF EDUCATION
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INTRODUCTION

The field of career education has grown at an amazing rate since first introduced formally in 1971. Both regular and special educators have recognized that it addresses pressing needs of their populations. Special educators, in particular, have found that career education responds to a long-standing concern of the field; the post-school adjustment of handicapped individuals. Evidence of the growth of career education for the handicapped has been abundant in recent years.

- The federal government has established an Office of Career Education in the U.S. Office of Education, a National Advisory Council for Career Education, and passed legislation authorizing over $400 million for implementing career education goals into the public schools.

- New divisions within the American Vocational Association (AVA) and the Council for Exceptional Children (CEC) have been established to focus on the career development of exceptional individuals.

- Four new professional journals devoted exclusively to career education have been established to deal with the growing career education literature.

- In 1973, AVA and CEC cosponsored a national topical conference on career education for exceptional individuals; in 1975, the Bureau of Education for the Handicapped sponsored a Conference on Research Needs Related to Career Education for the Handicapped; in 1979, CEC sponsored a national topical conference and several training institutes on career education for the handicapped; and both the University of Illinois and the University of Kentucky have sponsored national workshops related to implementing career/vocational education in university and local programs.

- Twenty-four separate federal agencies provide financial assistance for career education for the handicapped.

But the rapid growth of career education for the handicapped has not been without side effects. One of the most serious is that many professionals have simply been unable to keep pace with the field. Although the need to include career education in higher education and public school programming has been clearly documented, many classroom teachers and teacher educators lack the time to investigate content areas outside of their own fields of expertise. Many professionals have little substantive knowledge of career education or how to do it. *Career Education for the Handicapped: Current Perspectives for Teachers* responds to this lack of preparation. The book may be used in two basic ways: (1) *as a theoretical framework*, it may be used by teacher educators

to "retool" themselves in the area and as a text in preservice and inservice programs; (2) *as a practical framework,* it can show classroom teachers how to implement career education for the handicapped. It can also be used as a bibliographic resource. Thus, our audience may include *any* professional desiring knowledge about career education for the handicapped.

This volume evolved from a series of presentations given for Career Education for the Handicapped: Midwest RETOOL Consortium (MRC). MRC was a three year project subcontracted by the University of Kansas from Project RETOOL at the University of Alabama. MRC dealt specifically with "retooling" career education teacher trainers to work with the handicapped. Each contribution to the book is an updated version of a presentation given to consortium participants by an authority in the content area. (Mr. Boyan did not present to the consortium but was invited to add the section on curriculum considerations for the moderately handicapped).

The book is divided into three sections. *Theoretical Foundations* covers the concept (the What) and the rationale (the Why) of career education for the handicapped. *Implementation* deals with curriculum considerations for various degrees of handicapping conditions and methods teachers can use to implement career education in the schools. *Issues* presents discussions on selected problems in career education for the handicapped. Each chapter concludes with a bibliography of relevant articles and publications.

Whether the reader is in higher education or the public schools, there are common barriers to the incorporation of career education content into curricula. Attitudinal barriers at both levels concerning academic versus nonacademic instruction are still a reality. No information, little information, misinformation, or conflicting information on the nature and purpose of career education are also a barrier. Concerns about extending an already crowded curriculum are common to both levels. And, finally, educators in subject matter and categorical training areas resist any educational movement that threatens to weaken or destroy their unique identities. This publication is intended to begin to break down, or to eliminate some of these shared barriers.

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PART I

THEORETICAL FOUNDATIONS

In order to implement career education for the handicapped effectively, it is essential to understand what career education is and why it is important. The following two chapters present the theoretical foundation of career education and the social events and situations to which it responds. The positions in these chapters represent the editors' view that career education touches all aspects of a person's life, not just the economic roles a person may assume.

CAREER EDUCATION: A CONCEPT

Gary M. Clark

University of Kansas

A major perspective in the applied arts states that "form follows function." This means that to fashion a cup, a vase, or a pot, one must know who will be using the object and for what purpose. This idea is particularly appropriate to special education today as the pressures of meeting mandates and avoiding litigation dominate the professional educator's efforts. Under such pressures, the tendency is to lose sight of "function" and reach for any available "form" that will meet short term needs without causing long term problems.

In the context of delivering career education content to all handicapped students (K-12), "function" relates to the *purpose, direction,* and *content* of career education; "form," relates to the *approach, environment,* or *administrative arrangement* within which these functions are carried out.

If the concept "form follows function" is relevant to this problem, professionals must start with a planned and deliberate decision on what constitutes the appropriate *function* of career education for the handicapped.

What is Career Education?

No simple definition of career education has been universally endorsed. Many in the field have hoped that the lack of a definition would encourage divergent groups to come to grips with the problem and contribute to a body of knowledge that would eventually yield such a definition. A definition of this type would then describe a concept that had been studied, debated, applied, analyzed, and evaluated, rather than define a statement to which all study, debate, application, analysis, and evaluation must conform.

One of the first attempts at a formal definition was offered by Hoyt (Budke, Bettis, & Beasley, 1972):

> Career education represents the total effort of public education and the community to help all individuals become familiar with the values of a work oriented society, to integrate those values into their personal value structure, and to implement those values in their lives in ways that make work possible, meaningful, and satisfying to each individual.(p.3)

Hoyt (General Learning Corporation, 1972) qualified one aspect of this definition by pointing out an inherent assumption that "work values" encompass a variety of work motivations, including (but not limited to) the

Protestant work ethic. This assumption is important, because if one interprets Hoyt's definition in terms of the traditional Protestant work ethic, an argument can be made against career education which detracts from its major thrust. Green (McClure & Buan, 1973), for example, has challenged the idea of "fulfillment of personal identity" inherent in the Protestant work ethic, asserting that many jobs do not provide people with either an adequate sense of self-identity or with any satisfactory central life interest. Handicapped adults and their attitudes about themselves when they are rejected as workers or relegated to low-paying, low-status jobs can be considered in this framework. Gordon (1973) also raises the question of the importance of work in personal fulfillment. He observes that work may no longer be central in the new social order. The emphasis in most mass media on leisure activities as the central focus of the lives of millions of Americans provides credence for this perspective.

Although there is no single, universally accepted definition of career education, the U. S. Office of Education (Hoyt, 1975) presented a definition in a policy paper on career education that has been widely accepted and used as a basis for programming. The definition provided in Commissioner of Education Kenneth B. Hoyt's policy paper represents a slight change in emphasis from his 1972 definition. The policy paper definition states:

> Career education is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living. (p. 4)

This definition is based on Hoyt's definitions of "career" and of "education." "Career" is the totality of work one does in his or her lifetime beginning in the very early years and continuing through the retirement years. "Education" is the totality of experiences through which one learns and includes more than formal education. This generic definition is purposely intended to be broad and encompassing but it is also intended to be considerably less than *all of life* or one's reason for living.

The significant difference between Hoyt's 1972 and 1975 definitions is the shift of emphasis from "values of a work oriented society" to "experiences through which one learns about and prepares to engage in work." This shift toward a greater emphasis on work itself resulted in a need to clarify what is meant by work. Hoyt (no date) has defined work as:

> ...(the) conscious effort aimed at producing benefits for oneself and/or for oneself and others. As such, it is unimportant whether such effort is paid or unpaid in nature. What is important is that it represents the basic need of all human beings to achieve — to accomplish — to *do* something productive that allows the individual to discover both who he/she is and why he/she is. With this definition, work is properly viewed as a human right — not a societal obligation. (p. 2)

Hoyt became even more specific in a 1975 statement:

> 'Work' is conscious effort, other than that involved in activities whose primary purpose is either coping or relaxing, aimed at producing benefits for oneself and/or for oneself and others. (p.3)

These definitions of work make no restrictions about type of work, whether one speaks of the work of the musician, the athlete, the salesman, the bricklayer, the homemaker, the lawyer, or a do-it-yourself homeowner. Some work will require intensive coaching and personal preparation while other work may require learning on the job or an advanced degree. In most cases, however, being "successful" typically requires some learned set of job or daily living skills.

How do these definitions affect the handicapped child? First, there is the implication that work can be a part of the handicapped child's way of living, and that the child make a conscious effort to learn about and prepare for beneficial productivity (work), in the here-and-now and in the future. Work does not have to be paid employment or something one does when a child grows up. Work is possible for children.

A second implication is that while work itself, rather than the "values of a work oriented society," may be the increasingly accepted focus of career education in the future, both definitions assume that a handicapped child must learn early about the *right* to work and the possibility for paid employment later. But if *satisfying* paid employment does not occur, it is not necessarily because of a handicapping condition per se. That is more likely to result from factors outside of the handicapping condition, such as social attitudes, the limitations of occupational counseling, the placement skills of counselors, or the realities of manpower surpluses in an uncertain economy. The definitions enable *any* person to view her- or himself as an acceptable human being whether in paid employment or not, or whether or not the paid employment provides personal fulfillment. Work occurring in paid employment may be only a means to one of several ends — survival, safety, belonging, esteem, or self-actualization (Maslow, 1954). Work in unpaid situations, on the other hand, can be just as conducive to personal fulfillment or self-actualization as remunerative labor.

There is no doubt that the underlying theme in Hoyt's definitions presents a definite bias toward a person's economic life through work which is paid. The definitions and their elaborations also reflect an attempt to restore the credibility of the Protestant work ethic by emphasizing the positive aspects of work. They re-order the work ethic values which have shifted over the years or changed through distorted applications.

Not all definitions or conceptualizations of career education accept this emphasis on the work ethic. Some professionals argue that we must go beyond work activities and work roles to learn about and prepare for other roles, settings, and events in a person's life. Gordon (1973) proposes that "career" is best understood as "the course by which one develops and lives a responsible

and satisfying life." This definition suggests that career education can happen through a series of learning experiences that occur throughout a person's life, including one's roles as learner, producer, consumer, citizen, family member, and political being.

Larry Allen, a 1972 high school graduate of Searcy, Arkansas, echoes this more personal perspective:

> ...I hope that when the time comes to follow a Career Education plan in public schools we don't limit the concept implied by the term 'Career Education.' In the future, the work careers of Americans will constitute only a portion of our daily lives...To lead full, useful lives, on the job and off, we must be prepared to develop ourselves into well-rounded individuals. (Allen, 1973, p. 162)

Goldhammer (1972) also advocates this point of view, defining career education in the context of what he calls a "careers curriculum." This curriculum would be based on the various careers in which individuals engage as participants in society — producers of goods or renderers of services, members of family groups, members of social and political groups, and participants in aesthetic, religious, and moral concerns. Nash and Agne (1973) and Spradley (1973) have developed positions that support this broader perspective of career education.

Gysbers and Moore (1974) propose a similar perspective in their educational-guidance model for "life career development." They define life career development as "self-development over the life span through the integration of the roles, settings, and events of a person's total life". Cross (1974) has taken a parallel position in his "careers" education model for the elementary level. He suggests that if life is to be fulfilling, individuals must experience some degree of success in *all* aspects of living. He proposes that elementary education be organized around the careers that have the greatest influence on living in America: family member, citizen, member of a vocation, and pursuer of avocational interests.

Clark (1974) and Brolin (1974) view career education for the handicapped as having a broad scope, going beyond occupational awareness, exploration, and preparation to basic life concerns. Clark, referring to Gordon's (1973) definition of "career" cited above, states that career education,

> ...concerns itself with a merging of liberal education and vocational development such that it facilitates the *process of living* and is not limited to facilitating the *process of making* a living. (p. 10)

Brolin has taken a strong position on the need for an expanded view of career education; he outlines 22 competencies which he believes to be essential for educable mentally retarded persons, and toward which a career education curriculum should be directed. The major curriculum areas Brolin advocates

include *daily living skills, occupational guidance and preparation,* and *personal-social skills.* In his model, career education "systematically coordinates all school, family, and community components together to facilitate each individual's potential for economic, social, and personal fulfillment" (Brolin, 1974).

What are the implications of these definitions for the handicapped? They obviously reflect concern for additional aspects of a career development beyond mere work. They provide a strong argument for spending a significant amount of educational effort helping persons adjust to a variety of life contexts, including roles as person, social being, and citizen, as well as that of productive worker. In light of the needs of the handicapped, the important issue for teacher educators in interpreting any definition of career education is not to judge career education on the basis of any one definition, but to see in various definitions the possibilities for common understanding based on idealistic statements of intent. Career education is not yet a static, definable notion, in spite of the efforts of local, state, and federal educators to pin it down through official statements. There seems to be substantial disagreement among some individuals and groups about the primary scope of career education, but there may be less disagreement than it appears.

There is reason to believe that some public education officials assume that work should be the basic theme of career education because of the political realities of the times rather than because that view reflects their personal educational philosophy. They are sensitive to the fact that Congress, state legislatures, and local school boards respond more readily to educational programs that address current problems in unemployment, economic recession, work alienation, and welfare support than they respond to programs that emphasize life roles or life careers.

Fortunately, your role as an educator does not demand that you deal with political complexities involving definition. An understanding or perspective of the issues involved, however, should be valuable to you as you attempt to meet the career education needs of exceptional children and youth. This perspective will help you respond to anyone who asks you, "What is career education?" or "What is its function for the handicapped?"

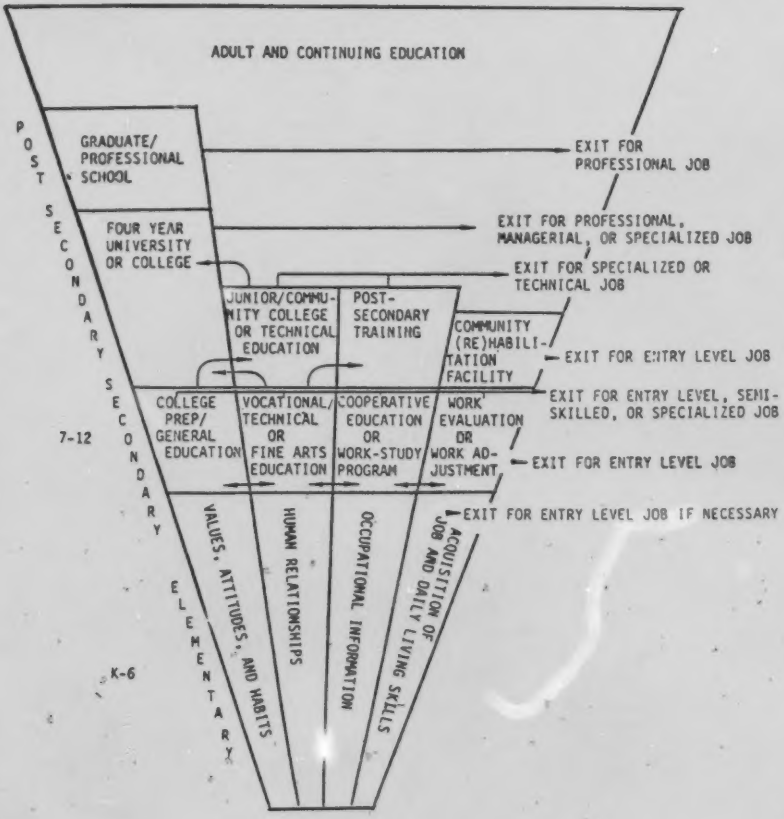
Two similar and highly compatible models can serve as functional models (Brolin and Kokaska, 1979; Clark, 1979) for the handicapped; both make an obvious case for an expanded view of career education beyond the typical focus on occupational awareness, exploration, and preparation — i.e., the conventional view.

The Clark model is presented in Figure 1-1. The function of career education is clearly based on four content area components designed for Grades K-12.

The consideration and the acceptance of a functional model depends on what basic assumptions support the model. The assumptions of the Clark model are:

1. Career education is for *all* persons — young and old, gifted and

FIGURE 1-1
A SCHOOL-BASED CAREER EDUCATION MODEL FOR THE HANDICAPPED


ADULT AND CONTINUING EDUCATION
POST SECONDARY
GRADUATE/ PROFESSIONAL SCHOOL
EXIT FOR PROFESSIONAL JOB
FOUR YEAR UNIVERSITY OR COLLEGE
EXIT FOR PROFESSIONAL, MANAGERIAL, OR SPECIALIZED JOB
EXIT FOR SPECIALIZED OR TECHNICAL JOB
JUNIOR/COMMUNITY COLLEGE OR TECHNICAL EDUCATION
POST-SECONDARY TRAINING
COMMUNITY (RE)HABILITATION FACILITY
EXIT FOR ENTRY LEVEL JOB
SECONDARY
7-12
COLLEGE PREP/ GENERAL EDUCATION
VOCATIONAL/ TECHNICAL OR FINE ARTS EDUCATION
COOPERATIVE EDUCATION OR WORK-STUDY PROGRAM
WORK EVALUATION OR WORK ADJUSTMENT
EXIT FOR ENTRY LEVEL, SEMI-SKILLED, OR SPECIALIZED JOB
EXIT FOR ENTRY LEVEL JOB
EXIT FOR ENTRY LEVEL JOB IF NECESSARY
ELEMENTARY
K-6
VALUES, ATTITUDES, AND HABITS
HUMAN RELATIONSHIPS
OCCUPATIONAL INFORMATION
ACQUISITION OF JOB AND DAILY LIVING SKILLS

retarded, mildly and severely handicapped, males and females, the poor and affluent, and all races and ethnic groups.

2. One's career is a developmental process, and is subject to planning, programming, and change.
3. The nature of our society demands that career education consider a variety of work values, rather than a single work ethic.
4. Career education is concerned with protecting each developing person's freedom to make choices and decisions while it assists him or her to learn what the alternatives are.
5. Significant deprivation in any aspect of human growth can affect career development.
6. There are many historical and current limitations imposed by society upon the life career development of the handicapped.
7. Any person choosing to participate as a producer or consumer in today's complex and rapidly changing world must possess skills in adaptability.
8. Career education for physically and/or mentally handicapped individuals differs significantly enough from that of the non-handicapped that some special attention to programming for them should be given.
9. Just as there is a need for differential programming between the handicapped and the non-handicapped, there is also a need for differential programming among the various disability groups within the handicapped population.
10. Career education programming for the handicapped should be initiated at least as early as kindergarten.
11. A democratic philosophy of education and a realistic philosophy of normalization do not dictate that all children have the same curriculum.

Clark's model focuses on work careers, but gives equal importance to all other competencies which are critical for both career and worker roles. The curricula of the elementary school (K-6) and junior high school (7-9) would both be based on the important elements of (a) values, attitudes, and habits, (b) human relationships, (c) occupational information, and (d) acquisition of job and daily living skills. These four elements change in their nature as pupils progress from grade to grade and as the sequence of objectives are accomplished.

The vertical extensions of the lines dividing the four major components of career education at the elementary and junior high school levels suggest that these components should actually continue through adult and continuing education. The parallel placement of advanced preparation and training options in relation to the components of career education in Grades K-9 are coincidental; they should not be perceived as a "track" or progression. A logical track or progression is intended, however, for entering and pursuing

preparation options from the 10th grade on. Even there, the arrows show the possibility of movement among the options and negate the idea of being locked in. Such changes do not imply simple exchanges. A preparation option's prerequisites and requirements would still need to be met.

CONCLUSION

The implications of career education for handicapped individuals using the model proposed in this chapter depend somewhat on the success of the career education movement within general education. As a concept, it affirms the proposals for personal, social, prevocational, and vocational training for the handicapped that have existed for some time. As a movement, however, it will have varying degrees of impact on the handicapped as a group, depending upon the extent of its implementation.

Most efforts at career education development at the state and local level now appear to be concentrating on general programming and implementation procedures for regular education programs. There is general agreement that these programming efforts have been more widely accepted in regular education by elementary teachers than by secondary teachers. This is extremely advantageous for elementary level handicapped children, since they may receive as much or more career education programming through their regular class instruction than they do in a special self-contained class or in a learning center. The latter program options for handicapped children, particularly those for the learning disabled, emotionally disturbed, and mildly retarded, still emphasize cognitive development and academic remediation, however, and are giving inadequate attention to the scope of career education as presented in the model advocated here. We hope this emphasis will change.

Career education is rapidly evolving into a movement with structure and definable parameters. Its intent, scope, and structure are still misunderstood by some, but information is being made increasingly available to educators and the general public to refute these misconceptions. As it evolves into what is to be, it is well to be reminded of what it is *not*.

- Career education is *not* vocational education with a new name.
- Career education is *not* a new educational movement to replace or downgrade academic education.
- Career education is *not* a system bound to traditional school ages or grade levels.
- Career education is *not* a program to be limited to any one environment.
- Career education is *not* training for a single occupation.
- Career education is *not* a program for one educationally handicapped, e.g., the mentally retarded.

Handicapped children fit into the scheme of career education as readily as any group and stand to gain from its offerings. Further, it is critical that such programming be provided. Those interested in their welfare, however, must move aggressively into the arena of career education development if there is to be a significant impact on the careers of the handicapped. To accomplish this, career education curricula must give equal consideration to the mutually important aspects of career development: attitudes, values and habits, human relationships, occupational information, and acquiring job and daily living skills.

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CAREER EDUCATION: A RATIONALE

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The past seven or eight years have been active ones for educators who have advocated career education as a basis upon which all education can be developed. This has been especially true for educators of the handicapped who have not only advocated the basic principles of career education for the handicapped for some time, but who also currently see it as a desirable change within the mainstream of education which may permit greater accommodation of handicapped children and youth. Since many of the concepts of career education have already been advocated for the handicapped in public schools (DeProspo and Hungerford, 1946; Hungerford, 1941; Kirk and Johnson, 1951; Kolstoe, 1970; Martens, 1937), one might ask why all teachers and teacher educators should be drawn into the movement of career education. For one reason, special educators are going to be asked, "What is career education?"

Another reason is that teachers and teacher educators in special education must anticipate that the question about what career education *is* may likely to be followed closely by another question: "Do we need a special program for that?" A good response to these questions should stem from a rationale for specific programming in career education for the handicapped that includes at least three approaches: (a) a developmental approach, (b) a retrospective approach, and (c) an adult adjustment approach. Each of these will be discussed in the following sections.

Developmental Approach

The developmental approach to establishing a rationale for career education programming for the handicapped is justified by the delayed, disordered, or uneven development in learning skills for daily living, personal-social, school, or occupational activities among handicapped children and youth. These developmental delays and disorders require an intervention program. Thus, the heyday of the self-contained special class model, "life function" (Goldstein & Seigle, no date), "life experience" (Special Education Curriculum Development Center, 1968) and "persisting life needs" (Wisconsin State Department of Public Instruction, 1970) approaches called for curriculum development based on developmental needs of children and youth.

Those career education advocates who view career education from an occupational development perspective have tended to use the developmental approach in proposing their career education models. Marland (1971), for example, uses the developmental sequence of career awareness (K-6), career exploration (6-9), and career preparation (9-12). The Ginzberg, Ginsburg,

Axelrad and Herma (1951) theoretical model of occupational development is also frequently used because of its developmental approach, as are those of Havighurst (Borow, 1964), Miller and Form (1951), and Super, Crites, Hummel, Moser, Overstreet and Wornath (1957).

This chapter begins, then, by affirming that career development is a developmental process; it is an aggregate of an individual's total development — cognitive, affective, and psychomotor. Significant deprivation in any aspect of human growth can affect career development. It must be comprised of a myriad of specific competencies, but soundly based on adaptive skills. This adaptability, in turn, stems from a strong foundation in academic skills, a personal meaningful set of values, positive attitudes toward self and others, good work habits, satisfying and satisfactory human relationships, knowledge of occupational and leisure alternatives, knowledge of the nature and realities of the world of work, and skills for daily living as well as for a job.

Figure 1-1 suggests a working model for conceptualizing career development through a career education approach for the handicapped. A more elaborate rationale for the model appears elsewhere (Clark, 1979) but it can be said here that a model of career education from this perspective focuses on career education for the handicapped through the mutually important developmental areas of:

1. values attitudes, and habits,
2. human relationships,
3. occupational information, and the
4. acquisition of actual job and daily living skills.

These areas are clearly the foci of the elementary and junior high school years, but they also continue through the 12th grade in the context of one of several curriculum options. From this perspective, the school should plan and provide a career education curriculum that includes more than just occupational information and skill training, and initiate it from the beginning of the school years.

The model proposed here is a curriculum model and, as such, should be discussed in more detail. The following sections provide a description of each of the major components, which give a more specific rationale for each.

Values, Attitudes, and Habits

When values, attitudes, and habits are cited as relevant curriculum areas of today's schools, many people agree wholeheartedly. Other people hedge and raise qualifying questions. Some actively oppose these elements in a public school curriculum. Both parents and educators find themselves in each of the three camps and, interestingly, they are in a particular camp because of their own values, attitudes, and habits.

One of the major reasons why concerns exist about the school becoming involved in the process of developing and fostering values, attitudes, and

habits is the problem in determining *which* values, habits, and attitudes should be taught, and thus endorsed. Values, for example, can be associated with any number of things — money, religious beliefs, race, education, sex, responsibility, integrity, loyalty to country, work, leisure, etc.. and many are controversial or sensitive.

There is no doubt that while our nation has historically maintained a sense of national identity concerning certain basic values, the pluralistic approach to our democratic form of government has produced a multiple-value system nation much different from the single-value system nation that we have idealized. This has led to internal problems and conflicts that result in a continuing state of confrontation, challenge, questioning, and social irresolution.

Recognition of this historical perspective suggests that Raths, Merrill, and Sidney (1966) offered a workable compromise, if not a solution, to the "teach values — do not teach values" dilemma when they suggested that educators should not be concerned with the *content* of people's values, but with the *process of valuing*.

Consideration of this view changes the focus from thinking about whether to teach students certain concepts that are value-laden to how to teach students to select, defend, and act in those concept areas so that they know *why* they think or believe as they do, *how* their actions are related to those beliefs, and *what* the probable consequences of their actions are.

A compromise in the area of values is not entirely acceptable to many who believe the school should maintain and preserve certain moral and social values. To them, a compromise that completely avoids value content begs the question. The position taken here is that the valuing process is of great importance in career education for the handicapped and it should be central to programming in this component of the model. However, the valuing process should not be taught to the exclusion of, or apart from, certain critical content areas, such as *work* (as defined by Hoyt, 1975), *leisure, personal responsibility, learning,* and *equal opportunity*.

The rationale thus far for the need to have curricular provisions for developing values and the development of valuing has not specifically dealt with attitudes or habits. The reason for this omission is that values, attitudes, and habits are so interdependent that a rationale for one is a rationale for the other two. Values, or those beliefs which are cherished, lead persons to assume attitudes or positions that reflect those beliefs. These attitudes, in turn, are manifested in relatively consistent and predictable behaviors, or habits. Instructional objectives in this area for children and youth whose behaviors or appearance are frequently in conflict with social values and mores should reflect a consistent approach across all three areas. Objectives should help students clarify *what* is believed, *why* it is believed, and *why* and *how* behavior is related to those beliefs. Glasser's (1965) approach is an example of a moral behavior approach which confronts a person's habits or patterns of behavior with the reality of right and wrong, acceptable and unacceptable, or legal and illegal.

Human Relationships

Historically, the American public school has concentrated its efforts in providing our youth with academic skills. Classroom discipline, behavior management, and meeting children's emotional needs have been integral parts of the instructional process, but they have been taught almost exclusively through incidental methods or behavior-specific events rather than as clear-cut, purposeful objectives and procedures. Critics of public education have decried this approach and have advocated a humanistic philosophy that places personal and social development alongside scholastic achievement as important aims for education (Illich, 1971; Phenix, 1964; Wilson, 1971).

The idea of specific, purposeful instruction in the area of personal/social behavior has been rejected by some who see it as the responsibility of the family, religious teachers, or even "everyone's" responsibility. Others have an attitude that says "these are children — just let them grow up — they'll learn." Those adults who take the latter view were either fortunate enough to have had a childhood environment that fostered personal and social growth without specific attention to it, or they are insensitive to the ways students (particularly behavior disordered students) learn and develop who have had different social environments and/or values than their own.

According to Campbell (1964), human relationships hinge on a person's acceptance or rejection. The criteria for acceptance or rejection are generally classified as pertaining either to personality and social characteristics or to skills and abilities. Research evidence abounds to suggest that friendliness and sociability are associated with acceptance; social indifference, withdrawal, rebelliousness and hostility are associated with rejection. In the area of developmental skills and abilities, research findings indicate that the more intelligent and creative children are more accepted by their peers, while the slow learners and the retarded are less well accepted, if not rejected. Body size, muscular strength, maturational development, and athletic ability also appear as criteria for acceptance.

From these data, it is clear that handicapped children and youth who differ in personal-social characteristics, as well as in their cognitive ability and psychomotor skill performance, need specific instruction to deal with those aspects of human relationships that affect their acceptance or rejection. Such instruction should come from every possible source; it should come particularly from the schools.

Career education must include a deliberate effort to develop skills in creating and maintaining positive human relationships at each developmental level. Any career education effort specifically designed for handicapped individuals must deal with those special problems that involve communication with and understanding of others. Examples of these special problems include communicating with nonhandicapped persons about their ignorance, naiveté, or attitudes; working through feelings of anger and hostility that are related to how others view their social or emotional problems; "suffering fools gladly"; communicating feelings about excessive attention or therapy; denial of

independence; and tendencies to withdraw from others.

Career education programming in human relationships is not typically cited in the literature as a discrete component. Although there is a tacit assumption that it is involved, it is rarely emphasized as a distinct area of instruction on a parallel with attitudes and values, occupational information, and acquisition of job skills. A case could probably be made for a similar emphasis in programming for the nonhandicapped, based on the literature that reports why people leave jobs, are fired from jobs, dissolve marriages, avoid personal and social interactions in leisure time, and seeking anonymity in large urban environments. The nonhandicapped, however, are not the target population here. If special educators accept this area as a legitimate component of career education programming and if it gains more structure and visibility, other educators may also move to incorporate it into their future programming.

Occupational Information

Occupational information programming within a career education curriculum includes several emphasis areas. Among these are: occupational roles, occupational vocabulary, occupational alternatives, and basic information on some realities of the world of work. Each of these content areas for emphasis will be discussed below.

Occupational Roles as a Producer. Information concerning work in a producer occupational role begins very early in a child's life through what is observed in the home, the neighborhood, shopping trips, or other contacts with adults. At first the roles may seem rather grossly differentiated (and distorted) such as "Daddy works, Mommy doesn't work," in the case where the father is remuneratively employed and the mother is a homemaker. The next level of awareness may be that "Dad gets paid for working, Mom doesn't." Depending upon the adult models children have for observation, information related to roles will vary from rather simple situations to very complex situations. The simple situations lead to concrete conclusions that either everybody works, nobody works, or adults work only sometimes. During early adolescence, the complex situations may lead young teens to the conclusion that some adults work all the time, some never work, some work without pay, some work seasonally, some work part time, some work at home, and many change from one type of work to another. The junior high school's role in imparting occupational information in this area should be to present as accurately and objectively as possible the variety of producer occupational roles which exists.

Occupational Roles as a Consumer. Everyone plays the role of consumer in the world of work at some time and handicapped children and youth, depending upon the degree of severity of their handicaps, may have experienced more as consumers than as producers thus far in their lives. Further, there may be the expectation by these youths and their parents that the consumer role may be the only one available. Every person must make value judgments about whether the producer role will be played at all. The consumer role, on the

other hand is one that is inescapable in our society.

It is the responsibility of the school to provide occupational information for both roles. The career education movement is a systematic approach to educating our children and youth for the producer or worker role. The obvious implication is that being a worker/producer is good — for the individual and for society. The unverbalized implication is the message that being a consumer only is *not* good — for the individual or for society. Educators of students with mental or physical disabilities must sort out their own philosophies at this point so that curricula will reflect opportunities for learning and career development which are not restricted to just the role of producer, if the connotation of producer is only that of a *paid* worker.

Occupational Vocabulary. Vocabulary development in occupational information is necessary for understanding concepts about work roles, what occupations exist, and something about the characteristics of work and work settings. Students who are learning about their present and future occupational roles must develop or expand their vocabularies to be able to acquire information basic to such learning. This is somewhat parallel to the student entering law or medical school. The first few months concentrate on the vocabulary or "language" of the profession. It is said that students in both these professions must acquire up to 20,000 new words during their preparation. Students with educational handicaps do not have such a monumental task, but do have to establish the hearing vocabulary skills essential for any given occupational information concept or fact. When possible, reading vocabulary skills for those same concepts or facts are desirable.

Basic Information Related to Some Realities of the World of Work. There is a point at which providing occupational information to handicapped students related to the realities of the world of work becomes problematic. That is, while on the one hand there is the goal to encourage them to want to work and be workers, one has to be honest in pointing out some of the realities of work that might be negative. Some attitudes, values, and habits important to career development are difficult to teach without risking negative or unacceptable attitudes and behaviors toward work. This section will deal in some detail with some of the realities that are especially important for handicapped children and youth to learn about. Positive or negative, they are the prevailing rules of the game.

Reality #1: North American society in general, and the United States in particular, is a work-oriented society. As such, it values work and workers. No one can be directly compelled to work in our society, except those few who are ordered by the courts to labor as a punishment for some crime. Even so, there are many formal and informal elements of our society operating to "make" people into workers. For most of us, the system is so effective that unemployment produces high levels of anxiety, personal guilt, and feelings of worthlessness. For the handicapped, these feelings are heightened, even though they may be able to understand that factors beyond their control are responsible.

Reality #2: Work, whether paid or unpaid, occurs in a particular locale: the

factory, the store, the office, the construction site, the shop, the clinic. Work can occur in the home for some occupations (artist, writer, telephone answering service, etc.), but by and large a person must go out to work. This reality has two important inplications for handicapped individuals. First, one must be mobile in order to get to work. This requires a set of competencies regarding travel that are critical for getting to the work setting. Choices of work alternatives may be influenced by this reality alone. A second implication is that since work is most frequently away from home, the work site becomes a public place. A public place has limitations on privacy; it usually has a set of expected behaviors; and there are formal or informal standards for dress and social amenities.

Reality #3: Paid work is largely impersonal. Work for which there is no pay may or may not be impersonal, depending upon the nature of the work. The personalized relationship one might associate with play, recreation, or a loving relationship are not expected on a job; in fact, they may be forbidden. This is one reality that youth may have already been exposed to indirectly at home as when they detect a different set of expectations by a parent when the parent requests (or more frequently *tells*) the child to perform a household chore. The child learns that the parent becomes a "boss" and has certain expectations about *what* is accomplished, *how* well it was accomplished, and in some instances the *process* of accomplishing it. The parent temporarily becomes an impersonal work supervisor and acts out a role that is basically the norm in the work world.

The reality of impersonality and working with and for relative strangers who are "all business" may be discouraging to children who have strong needs for more personal relationships. While exposing them to this reality runs the risk of their developing negative attitudes to working, it is even more of an injustice to ignore the reality, or worse, distort reality so that they build up unrealistic expectations.

Reality #4: Work has its reward systems. Paid work obviously has the reward of renumeration but unpaid work may provide the reward of saving money — that is, not having to pay someone else to do the work. There are other rewards of work, however, that should also be mentioned. Some people see work as having the benefit of being of service, an opportunity to pursue interests and abilities, a means of meeting and interacting with people, a way of avoiding boredom, or a chance to gain or maintain self-respect or esteem.

Youth need to know that people work for money but that they work for other things also. The question, "What's in it for me?" is not inappropriate as students begin to learn to sort out their values and establish a basis for being able to verbalize, "I want to work because..."

Reality #5: Work is bound by time. Most workers have starting times and ending times. Certain times are set aside for breaks, for eating, or for clean-up. Many jobs are based on payment for certain hours with extra payment for overtime. Even when pay is based on "piece rate," the individual is racing against time to produce or complete as many pieces as possible. There are job benefits that relate to time off and penalties for being late. To waste time at

work is always frowned upon and if it is a chronic behavior, it may be grounds for removal from the job.

It is clear that an inability to discipline oneself to time demands or constraints is one of the most serious obstacles to adjustment to work. This is an especially difficult area for some individuals who have trouble relating to time concepts. It may also be an obstacle to those handicapped youth who have a very rational view of time and believe that those who are slaves to time schedules are the "sick" ones. Nevertheless, while one might appreciate the resistance of some students to the hectic time-oriented pace of American living, the reality is there. They must learn to understand the system and the alternatives within it.

Reality #6: Work is seldom performed in complete isolation or independence. Most work involves two or more poeple who interact in various ways. One of the most important of these interactions is the worker/supervisor relationship. Another is the interaction among fellow workers or consumers (customers, patients, clients, etc.). Still another is the interaction of the worker with subordinates. Depending upon the size and complexity of the work setting, a number of interpersonal reactions are required which may be more critical to staying on that job than ability to perform the work tasks.

Reality #7: Work settings, like individual workers, rarely exist in isolation. As societies have moved from primarily agrarian work settings to modern industrial work settings, there has been an increasing dependence and interdependence among workers and work groups. Producers of goods require the services of workers in raw materials, other manufactured goods, transportation workers, marketing and distribution workers, and business and office personnel on a continuous basis. Periodically, they may require the services of workers in the building trades, communications and media, health, and public service.

If children and youth have not already learned this, they should become aware of these relationships to understand the importance of all types of work groups and to combat some of the occupational stereotyping and status problems (to be discussed further in Reality #8 below) that inevitably arise in a study of the world of work.

Reality #8: Not everyone who wants to work can obtain work, nor can everyone who obtains work be employed in work of his/her choice. This final reality is one that affects many workers, but will particularly affect an individual with mental or physical handicaps. It should not be presented at the elementary level. At the junior high school level this reality should be presented as a general issue, rather than a particular one for them. They should be allowed to have their fantasies about wanting to be various kinds of workers; too much reality at this stage would be inappropriate. Withholding some reality orientation from them on this topic is also advisable because, although the facts show that the handicapped as a group may not necessarily be adversely affected, it is not an accurate prediction for any one handicapped individual.

At the high school level, however, the handicapped adolescent must begin to

come to grips with the realities of the world of work so that coping with those realities will be easier later. The introduction of these realities must be gradual and include individual encouragement with cautious but realistic optimism.

Acquisition of Job and Daily Living Skills. It is evident that the current literature in career education focuses on occupational awareness, exploration, and preparation. Whatever mention is made of attitudes, values, and habits is usually directly related to the goals of developing positive attitudes, values, and habits toward work in paid employment. Similarly, whatever mention is made of the issue of human relationships usually deals with social interactions on a job. What are rarely mentioned are the importance of competence in daily living in one's career development and how daily living competencies relate to success in the world of work. These competencies in daily living should receive equal emphasis along with acquisition of job skills or competencies.

Job skills and daily living skills overlap in so many instances that there is little reason for debating the necessity of including daily living skills in a curriculum model. The skills required for reading a recipe in cooking a meal at home are the same as those needed for reading a recipe as a cook in a restaurant. The skills required for driving a car or truck for personal reasons are the same skills required for driving a car or truck in a work setting. The skills needed for selecting and purchasing items for personal use are basically the same skills required for selecting and buying goods in the work world.

There are, obviously, scores of daily living demands that require skills or competencies that are not associated directly with occupational skills. These skills are still justifiable within a career education context because they are the critical competencies that undergird all experiences of life. Failure to acquire competencies in daily living cannot be isolated from one's success or failure in the world of work.

Any job performance, or any occupational or daily living skill, requires one or more basic skills. These are typically categorized under the domains of cognitive skills, affective skills, and psychomotor skills. The basic thrust of this section is that handicapped students should have specific programming in basic cognitive and psychomotor skills which are useful in preparing them for (a) current and emerging work roles, (b) assuming more complex work roles, (c) coping with current and emerging daily living demands, and (d) coping with the more complex demands to be made on them in daily living.

Specific examples of the kinds of skills that are appropriate for this area include those advocated by Brolin (1974):

1. Managing family finances
2. Caring for personal needs
3. Raising children and family living
4. Buying and preparing food
5. Engaging in civic activities and responsibilities
6. Using recreation and leisure resources

7. Getting around the community
8. Achieving problem solving skills
9. Communicating adequately with others
10. Acquiring specific salable job skills

In addition to the importance of acquiring job and daily living skills for their usefulness, these skills are also important because our society expects everyone to be able to demonstrate these competencies. There are certain social "penalties" people with handicaps have to pay if they cannot perform these competencies. Stares, comments of little children, embarassed interactions, and well-meaning but ignorant questions are typical. Competence in as many skills as possible help the handicapped present themselves as more like the nonhandicapped than different.

Retrospective Approach

The retrospective approach to building a rationale for career education observes current and past events or concerns that lead to predictions or implications for the future. The most common presentation of retrospective data is the citing of research data or position statements of experts. Hoyt (1975) uses this approach in his presentation of the following criticisms of American education:

1. Too many persons leaving our educational system are deficient in the basic academic skills required for adaptability in today's rapidly changing society.
2. Too many students fail to see meaningful relationships between what they are being asked to learn in school and what they will do when they leave the educational system.
3. American education, as currently structured, best meets the educational needs of that minority of persons who will someday become college graduates. It fails to place equal emphasis on meeting the educational and life needs of that vast majority of students who will never be college graduates.
4. American education has not kept pace with the rapidity of change in the postindustrial occupational society. As a result, when worker qualifications are compared with job requirements, we find overeducated and undereducated workers are present in large numbers. Both the boredom of the overeducated worker and the frustration of the undereducated worker have contributed to growing worker alienation in the total occupational society.
5. Too many persons leave our educational system at both the secondary and collegiate levels unequipped with the vocational skills, the self-understanding and career decision making skills,

or the work attitudes that are essential for making a successful transition from school to work.

The criticisms of American education cited above reflect observed discrepancies among what exists, what does not exist, and what is expected to exist in the future. A non-response to changes in the past or a non-response to preparation for the future make for another type of uneasiness on the parts of many educators and/or observers of the educational scene. Some quotes compiled by Raudsepp (1978) illustrate these perspectives:

> Nothing is ever done until everyone is convinced that it ought to be done, and has been convinced for so long that it is now time to do something else. — F. M. Cornford

> The pace of events is so fast that unless we can find some way to keep our sights on tomorrow, we cannot expect to be in touch with today. — Dean Rusk

> It is a paradox that in our time of drastic change, when the future is in our midst devouring the present before our eyes, we have never been less certain about what is ahead of us. — Eric Hoffer

> Our Age of Anxiety is, in great part, the result of trying to do today's job with yesterday's tools — with yesterday's concepts. — Marshall McLuhan

If statistics make these criticisms any more believable, the following appear frequently in career education rationale statements:

- In 1970-71 close to 2.5 million students left the formal education system of the United States without adequate preparation for careers. Of these:
  - 850,000 were dropouts from elementary and secondary schools;
  - 750,000 were general high school graduates who did not enter any post-secondary training and had no marketable skill; and
  - 850,000 were dropouts from college or other post-secondary programs (Marland, 1971).

- In the 1980's, it is predicted that 80% of all job openings will require less than a college education (Russo, 1972).

- The average person must go back to school or receive some kind of training or retraining 7-9 times in his or her lifetime (Russo, 1972).

- The Bureau of the Census lists 250 different occupations, but

half of all working women are employed in only 21 of them, usually the low pay, low responsibility jobs (Sheehy, 1977).

Of the 2.5 million handicapped youth who will leave our school systems between 1973 and 1977, it was predicted that:

- 525,000 (21%) would be either *fully employed* or enrolled in higher education;
- 1,000,000 (40%) would be *underemployed* and at the poverty level;
- 200,000 (8%) would be in their home community and idle much of the time;
- 650,000 (26%) would be *unemployed* and on welfare, and
- 75,000 (3%) would be totally dependent and institutionalized (Barone, 1973).

The "why" of career education in terms of emphasis on work becomes obvious with the data presented above. If similar data were available regarding the handicapped in their roles as consumers, family members, citizens, etc., would we be even more alarmed at our educational shortcomings? Consider these statements:

- In recent years there has been a tendency for family organization to break down for various reasons, including increased mobility and rising divorce rates . . . On theoretical grounds, such disaggregation should result in rising rates of violent crime (Scott, 1977).
- John Stuart Mill stated in 1859 that education is vital to both individual and social progress. However, he warned that a general education by the state is a mere contrivance for molding people to be exactly like one another. Many reviewers of the current education system confirm Mill's forecast in contending that the system has discouraged curiosity, creativity, active investigation, and responsible dialogue among children (Bikson, 1978).
- Recent census figures suggest that close to 25% of American children are growing up in other than nuclear families as a result of separation, divorce, widowhood, or single parenting. This figure appears to be on the increase (Glick, 1975).
- The inability to handle leisure in a satisfying way is a real danger in our society. Workers whose unions have won them three month vacations sometimes discover that all of that free time is frightening (Westfall, 1979).
- As matters stand now . . .
  - American teenage childbearing rates are among the highest in the world.

- One fifth of all births in the United States are to teenagers.
- Of the young people between the ages of 15 to 19, 52% are estimated to have had sexual intercourse; of those who are 13 and 14, 20% is the estimate.
- There are not more than six states, and the District of Columbia, which require sex education courses in their schools (Planned Parenthood Federation of America, 1977).

Adult Adjustment Approach

Given the criticisms of our educational programs from former students, parents, the business-industrial community, drop-outs, minority groups, and the general public, the rationale for a need to respond is difficult to refute. The question might be asked, however, "Is all this true for the handicapped?" If one takes an adult adjustment approach in establishing a rationale for career education for the handicapped, there is more emphasis on data than observation, logic, or reflection. This approach uses adult adjustment criteria as the ultimate objective for determining what skills and competencies are or are not being demonstrated, and which are needed in handicapped persons' life careers. These criterion skills then become the basis for a career education curriculum.

Brolin (1973), Brolin & Thomas (1971, 1972), and Brolin, Malever & Matyas (1976) have provided an adult adjustment approach in identifying major competencies for the mildly mentally handicapped. These competencies were condensed down to 22 basic competencies, with approximately 104 subcompetencies under them. The competencies fell into three major categories: Daily Living Skills, Personal-Social Skills, and Occupational Guidance and Preparation. These parallel directly and indirectly the four categories of the model presented in Chapter 1. The one major difference in the two is the latter's specification of personal-social skills as "attitudes, values and habits" and "human relationships."

A rationale for the importance of programming for valuing, attitudes, habits and human relationships goes beyond an educational philosophy. Butler and Browning (1974), Cobb (1972), Goldstein (1964) and Henrich and Kriegel (1961) have all concluded from the research literature on adult adjustment of the handicapped and personal reports of handicapped persons that these human variables are of critical importance. In most cases, they seem to be of greater importance for the handicapped than actual job skills in maintaining employment and successfully fulfilling roles in the home and community. The research of Stephens (1972) strongly suggests that moral judgment (based on values) and moral conduct (attitudes and habits) in children of normal intelligence and below are developmental traits and, as such, are amenable to change through education and training. Thus, the research literature supports the idea that values, attitudes, and habits are important and are subject to change through programming.

Adult adjustment of the hearing impaired is reflected in a review of research by Stuckless (1978) that clearly validates a rationale for career education for

the hearing impaired in all of the four components of the model presented in this publication. Irvine, Goodman, and Mann (1978) and Rogan and Hartman (1976) provide similar data for learning disabled individuals. Clark (1966) reports on literature from professionals in the field of visual impairment and provides further support for a rationale based on an adult adjustment approach.

CONCLUSION

Any attempt to provide a rationale for a concept or program is subject to criticism of bias on the part of the individual presenting the rationale. This is no exception. For those who already believe in career education for the handicapped, this rationale is not needed. For those who have no interest in the concept generally, this rationale has been presented from as comprehensive a view as possible in order to find some common ground for communication. Whether one reads this as an educator with an emphasis on elementary level children only or as an educator committed to learning disabilities, this rationale says: A child or youth's life career adjustment depends on every teacher's effort (at every level of development, in every instructional area) to be as concerned about all aspects of his/her life career development as has been given to academic development in the past. Handicapped children need and deserve that type of effort by teachers.

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New Skins for New Wine ED 079 380

The Need for Career Education ED 066 556

The Need for Career Education ED 067 450

PART II

IMPLEMENTATION

Although career education programming is important for all handicapped individuals, the form and substance of the program will necessarily differ for different groups. Part II presents views on career education programming for the mildly, moderately, and severely handicapped. In addition, Chapter Four provides suggestions on implementation strategies for each of these groups.

A CURRICULUM MODEL FOR CAREER EDUCATION

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My first in-depth exposure to what we now entitle "career education" for exceptional individuals came as a work-study coordinator of secondary programs at North High School in Phoenix, Arizona. Although the title "work-study" is more closely associated with vocational training, on-the-job experience, and placement, I could not help but become involved in other aspects of the student's life. By this I mean personal-social skills, such as building self-esteem and making friends, and daily living skills, such as managing a home, driving a car, and voting in an election.

My interest in these competency areas was heightened when we reviewed the results from follow-up studies of our former students. Although the former students had only been out of school a few years, we began to see that many of the skills we thought we had successfully taught them in high school were either lost or not appropriate to the demands of being a young adult. Although these ideas have been discussed in reviews of follow-up studies and voting practices of former students in classes for the educable mentally retarded (Kokaska, 1968; 1972), they are applicable to programs for all exceptional individuals.

The follow-up studies sharpened our awareness of three major considerations in building programs and planning curriculum:

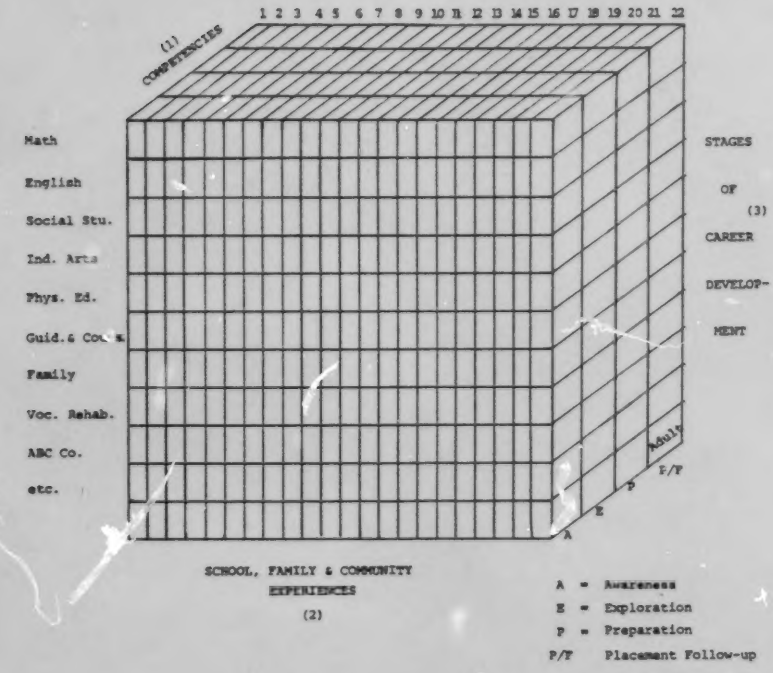
1. There are numerous skills or competencies that have to be mastered by the exceptional student in order to succeed as an adult.
2. These competencies have to be taught on a continuum from kindergarten through the adult years.
3. The education sector has to cooperate with as many community agents as possible to achieve common goals related to the competencies.

Career education includes these three considerations, as well as many others, and therefore can be an important contribution to the total curriculum for individuals who will need special education and related services.

A Curriculum Model for Career Education

The curriculum model in Figure 3-1 (Brolin & Kokaska, 1979, p. 107) illustrates the interface among elements which parallel the findings from follow-up studies and, thus, become major considerations in planning programs. These elements are titled:

FIGURE 3-1
COMPETENCY-BASED MODEL FOR
INFUSING CAREER EDUCATION INTO CURRICULUM



- competencies,
- stages of career development, and
- school, family and community experiences.

The three dimensional model alerts teachers, counselors, advocates, and others to the fact that numerous elements are to be considered at any one moment in the student's career development. The following discussion briefly expands upon these major elements.

Competencies

Twenty-two major competencies are contained within three curriculum areas: daily living skills, personal-social skills, and occupational guidance and preparation (Table 3-1). The major competencies within these areas, as well as their 102 subcompetencies and suggested instructional objectives, have been identified in research (Brolin, 1972; Brolin, Malever, & Matyas, 1976) and expanded in greater detail in two publications (Brolin, 1978; Brolin & Kokaska, 1979).

Table 3-1

CAREER EDUCATION CURRICULUM COMPETENCIES

Daily Living Skills

1. Managing family finances
2. Selecting, managing and maintaining a home
3. Caring for personal needs
4. Raising children, family living
5. Buying and preparing food
6. Buying and caring for clothes
7. Engaging in civic activities
8. Utilizing recreation and leisure
9. Getting around the community (mobility)

Personal-Social Skills

10. Achieving self-awareness
11. Acquiring self-confidence
12. Achieving socially responsible behavior
13. Maintaining good interpersonal skills
14. Achieving independence
15. Achieving problem-solving skills
16. Communicating adequately with others

Occupational Guidance and Preparation

17. Knowing and exploring occupational possibilities
18. Selecting and planning occupational choices
19. Exhibiting appropriate work habits and behaviors
20. Exhibiting sufficient physical-manual skills
21. Obtaining a specific occupational skill
22. Seeking, securing, and maintaining employment

One of the most important considerations about the competencies and their numerous sub-parts is that they are worded in adult terms. For example, the first competency, Managing Family Finances, reflects an adult skill. One may then say:

> "Well, I teach at the elementary level and that skill can be taught in the junior or senior high school program."

This is where the concept of *infusing* career education into the curriculum is most applicable. This competency, managing family finances, and all of its sister skills have their roots in the elementary school years. Students should be systematically exposed to the competencies through a variety of subjects and experiences. This can be accomplished if teachers are aware of the long term objectives of the curriculum and the yearly activities that can be initiated to increment student skills.

Stages of Career Development

Career education is typically projected in stages of development. This model includes the following four stages:

- career awareness (K onward),
- career exploration (6 onward),
- career preparation (6-7 onward), and
- career placement, follow-up, and continuing education (10 onward).

Certain grade levels have been included with the stages, but one's career development can begin at various grades and ages and should continue to function into later years. It is quite possible for an adult with cerebral palsy to be working on one job, while preparing for another through continuing education, and exploring avenues of employment. This individual is encountering several stages of career development and competency areas at the same time.

I have used the work world as the easiest example, but the reader should remember that these stages apply to all competencies. Many of us are prone to associate career education merely with work and jobs when the concept includes the total person who functions in a variety of roles such as citizen, family member, student, and advocate.

School, Family and Community Experiences

This element includes those people in schools, community agencies, business/industry, and the family, who can provide the student with experience in the competencies at various stages of career development. This is the human factor in the model. Someone must create an opportunity through which a handicapped individual can experience success and competence. That person

may be a classroom teacher, vocational rehabilitation counselor, employer, civic club worker, member of the local Rotary, or family relative. The list of potential sources of assistance is extensive (refer to Brolin & Kokaska, 1979), but it is of little value if teachers and counselors fail to see the tremendous advantage and necessity of including as many agents as possible in the career education process.

One word of caution about the model. As each competency interacts with a stage of development and agent, a singular cube or intersection is formed within the total design. However, the intersections are not independent of each other. That would defeat the very purpose of our efforts to infuse career education into the larger curriculum. Subject areas often combine during classroom lessons, several competencies can be taught at the same time, and a student may overlap stages of career development. The three dimensional model was created to illustrate a vibrant relationship between essential components in career education. Therefore, the reader must resist a tendency to visualize each intersection as a static relationship.

The model illustrates that a student can be exposed to a competency at several stages and through many agents and vehicles. For example, the competency of managing family finances can be taught in mathematics at the elementary, junior, and high school level. As a matter of fact, it is an important competency throughout our adult life and receives all kinds of attention in newspapers and magazines. Before the competency is addressed, the elementary school teacher should provide the student with a sufficient *awareness* of the importance of the skill. The student can progress to *exploration* experiences in and out of the school situation in order to observe how people make "wise expenditures" or manage their money. During late junior and early senior high school, the student should be *preparing* to manage money through other community and family experiences.

Discussion

One of the advantages of this curriculum model is that educators can use it to anticipate problems in achieving competencies and infusing career education for handicapped individuals into both regular and special programs. Some of the problems may occur in:

1. Sequencing the skills so that they can be taught from kindergarten through the adult years. This sequencing will require teachers and curriculum consultants to reveiw their programs on the short and long term projections required in the model.
2. Identifying instructional materials and methods that can be used to develop the competencies in each student.
3. Infusing instructional modules into curriculum areas that are taught by regular educators. This will be of particular importance for those handicapped students who are placed in regular classes for the vast majority of their training. Regular

educators may not have the total picture of competencies needed by handicapped students and would need assistance and suggestions relative to career development.

4. Determining the kinds of developmental experiences that can be initiated and conducted by the family. The family is a vital component in career education, but we still have a long way to go in coordinating home-school efforts and activities.
5. Utilizing community sources and agencies at given stages of career education.
6. Maintaining a record of student progress across the competencies, subcompetencies, and instructional objectives.

Some readers may review the curriculum model and the above problems and say:

> "That's just a theoretical design. It doesn't have any 'pull' in the everyday activities of the classroom teacher."

The item that does have some "pull" with the classroom teacher, parent and student is the individualized education program (IEP). The IEP is one vehicle by which teachers and counselors can infuse career education into the curriculum, and the competency based approach that is fundamental to the theoretical model lends itself to the formulation of the short term and long term instructional steps required in the IEP. Both the IEP and the competencies complement one another. They can be interlaced in a way that adds direction to programming, objectives for evaluation, and major steps for instruction. In order to accomplish a potentially productive relationship, teachers and counselors should be aware of the following tasks.

1. Alert teachers to the full expanse of career education. If school personnel do not feel responsible for career education, they will not become a part of the cooperative team or give it a respectable amount of attention in their instruction.
2. Review district and state guidelines for the IEP. If the words "career education" or "career development" do not appear on the IEP form, or in the report forms that compile requests for needed services, it is quite possible that career education can be neglected because of poor record keeping.
3. Inform parent groups about career education activities in the school, home, and community. Parents can initiate requests for career education. They should be made aware of instructional possibilities that can appear throughout the elementary and secondary curriculum.
4. Communicate with other professionals who have a definite role in the formulation of the IEP. These professionals include counselors, social workers, vocational educators, and rehabili-

tation personnel. Devote particular attention to vocational educators; they have a vital role in preparing handicapped individuals for work roles. The area of "vocational skills" has a separate place within the IEP and vocational educators are receiving increased assistance and training so that they will be able to meet the instructional goals that will appear in the vocational section.

CONCLUSION

The vast majority of handicapped individuals can become productive, contributing members of society. The daily newspapers and national periodicals contain increasing evidence of handicapped individuals gaining success in roles as family member, worker, and citizen. The curriculum model for career education contained in this article is designed to prepare students for those multiple roles. We have the model, the supporting research, and the instructional techniques. What we now need is the determination to implement all of these. It may take a while, but the rewards are worth the investment.

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CURRICULUM CONSIDERATIONS IN CAREER EDUCATION FOR THE MODERATELY HANDICAPPED

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The education of the moderately handicaped is currently undergoing a series of exciting and far-reaching changes. Recent trends in research, legislation, and de-instutionalization are raising expectations for this group of students, and nowhere is this change more focused than in the area of career education. Traditional school programs, often running from 8:30 to 2:30, five days a week, and offering little interaction with the community, are no longer adequate to meet the career education goals of the moderately handicapped.

This section will present rationale, suggestions, and innovative curriculum materials for new approaches to career education for these students. Teacher educators should be aware that implementation of some of these suggestions may involve changes in teachers' self-concepts, making career education for the moderately handicapped one of the most challenging areas of current educational practice.

Definitions

No universally accepted definition exists for the terms "career education" and "moderately handicapped." For the purposes of this discussion, Brolin & D'Alonzo's (1978) life-centered definition of career education will be adopted, encompassing daily living skills, personal-social skills, and occupational competencies, in addition to basic academics.

In this sense career education is far more than a new name for vocational training; it represents the full range of skills necessary for independence in our society. Fundamentally, it asks two questions: 1) Where will this student *live* after leaving the public schools: at home, in an institution, or independently in the community? 2) Where will this student *work* after high school: in a sheltered workshop, in a competitive job in the community, or not at all?

Arriving at a definition of "moderately handicapped" is more difficult. The following definition, although somewhat broad, has been selected for this discussion. Students with moderate handicaps are considered to be those placed in programs for the moderately mentally retarded, or having a physical handicap (auditory, visual, orthopedic, etc.) accompanied by low intellectual or adaptive functioning. This definition is meant to exclude the severely and profoundly handicapped, and also the mildly handicapped (persons with specific learning disabilities, speech defects, hearing or vision loss, etc.). For brevity and simplicity, this discussion will focus primarily on the trainable mentally retarded as the educa-

tional classification most representative of the moderately handicapped (although some educable mentally retarded students may also fall into this category, and some trainable students may be classified as severely handicapped).

Appropriateness

How appropriate is career education for the moderately handicapped? Current practice already includes teaching many aspects of career education to this group. Kirk (1972) lists the following curriculum objectives for the trainable mentally retarded:

1. Developing self-care or self-help,
2. Developing social adjustment in the home and neighborhood, and
3. Developing economic usefulness in the home or a sheltered environment.

Basic (survival) academic skills are also taught, although some controversy still exists about the level at which such skills can be assimilated by the moderately handicapped.

In the past, the specific content of any curriculum has been greatly influenced by the expectations held by professionals for post-school life goals of these students. In general, students may have been expected, as adults, to live at home, in a foster home, or some kind of institution. If they were to be employed at all, it would be in a sheltered workshop. Three strong trends in the past decade have made it imperative to expand these assumptions and revise some thinking about curricula.

The first trend is exemplified by the Bureau of Education for the Handicapped's stated priority a few years ago that by 1977, every handicapped child leaving the schools should have career education: (1) relevant to the job market, (2) meaningful to his or her career aspirations, and (3) realistic to his or her fullest potential. This trend is strongly supported by legislation such as the Rehabilitation Act of 1973, the Education for All Handicapped Children Act of 1975, and the Vocational Education Amendments of 1976. Quite clearly, a specific vocational component is called for in career education for the moderately handicapped.

The second major trend involves the area of occupational skills. In the past, the moderately retarded have been *defined* as incapable of holding semi-skilled or simple skilled jobs (Grossman, 1972.) In the last decade, however, advances in training technology have demonstrated that expectancies may have been set far too low. Pomerantz and Marholin (1977) offer an excellent discussion of vocational training issues, quoting nearly ten studies demonstrating success in vocational habilitation efforts with *severely* handicapped persons, including the teaching of complex assembly tasks involving bicycle brakes or printed electronic circuit boards. Efforts to involve moderately handicapped students

in human service jobs, e.g., as school or hospital aides, or as workers with the aged and with infants, have also been reported (Boyan, 1978a). It seems evident that far more than sheltered workshops may await the moderately retarded student (Malian, 1978).

It has also been established that the primary cause of failure of retarded persons in the world of work is not their lack of specific occupational skills, but their inability to relate maturely to other people (Dockrell, Dunn, & Milne, 1978). This re-emphasizes the necessity for including and upgrading the teaching of personal-social skills as an integral part of career education. If students are to be working in community job sites (as opposed to sheltered workshops) getting along with other, nonhandicapped persons takes on added importance.

The third major trend influencing curriculum is that of normalization and deinstitutionalization. More and more persons are being discharged from large institutions and served in the community in a variety of living arrangements (see O'Conner, 1976; Baker, Seltzer, & Seltzer, 1977). It is clear that daily living skills are critical for success in community living, and that modern techniques of applied behavioral analysis can be used to teach many of these skills. Lent and McLean (1976) offer an excellent presentation on these issues. Again, schools will be called upon to prepare students thoroughly for community-integrated living on an independent or semi-independent basis. Programs may find it impossible to remain isolated from actual learning experiences *in* the community; they may need to reach far beyond the walls of the school and the traditional hours of instruction.

Thus, numerous aspects of career education are not only appropriate for the moderately handicapped, they have also been recognized as a national priority. Recent trends in legislation and services have made it necessary for curricula to address increased expectations in survival academics, daily living skills, interpersonal and social growth, and specific occupational competencies.

Comparison with Other Handicapped Groups

For comparison with other handicapped groups, this section will focus only on vocational education, although differences and similarities exist in other areas of career education. Traditionally, vocational education efforts in this country have been directed at the mildly handicapped, and their success has not been unqualified. Lee (1976) reported less than 270,000 handicapped students enrolled in vocational education nationwide. A study of such programs by Olympus Research Corporation (1974) showed that 77% of all handicapped students were mentally retarded. Only 12% of these students were classified as trainable mentally retarded. In addition, recent reports by the President's Committee on Mental Retardation stated that "many moderately, and virtually all severely or profoundly retarded persons are excluded from services of vocational rehabilitation" (President's Committee on Mental Retardation, 1977). It is also interesting to note that of six recently

identified exemplary career education programs for the handicapped, none deals specifically with the needs of the moderately handicapped as defined in this paper: most are specifically geared for less handicapped students (Lake, 1975).

Similarly, curriculum materials on vocational education for the handicapped abound. Many, however, are written at approximately the third grade reading level, making them inappropriate for many of the moderately handicapped. A recent NIMIS/ NICSEM computer survey of materials specifically geared for "career education, trainable mentally handicapped" yield only fifty-one titles. Of these, the great majority were judged suitable for trainable *or* educable students. It may therefore be accurate to say that career education materials developed *specifically* for the moderately handicapped are not overabundant. (A list of some currently available materials appears on pages 52-53. Inclusion of this list does not necessarily imply endorsement.)

It is more difficult to make comparisons with career education efforts for the severely handicapped, since this group has traditionally not been included in the public school system (although the situation is changing). We will note only that most of the recent advances in vocational training technology referred to earlier have been with the severely and profoundly handicapped. These strategies and techniques have certainly raised expectations for the moderately handicapped as well. Since many of these techniques involve behavior modification, however, teachers should be cautioned against employing tangible reinforcers or token exchange systems for the moderately handicapped until the intrinsic rewards of learning and mastery, or social reinforcers such as praise, smiles, and hugs, prove ineffective (MacMillan and Forness, 1973).

Scope of Career Education

Career education, as indicated above, tries to answer two basic questions: where will this student *live* when he or she finishes schooling? And where will he or she *work?* The following curriculum outline is suggested for a comprehensive program for the moderately handicapped.

1. Personal hygiene and grooming
2. Care and selection of clothing
3. Health and safety practices
4. Cooking, meal-planning, and related kitchen skills
5. Home management and housekeeping
6. Socialization skills (manners and interpersonal relations)
7. Eating habits
8. Use of the telephone
9. Leisure time skills
10. Physical training and sensory-motor integration (including regular exercise)
11. Language
12. Reading and writing for survival

13. Math/money skills
14. Time telling
15. Mobility in the community
16. Shopping
17. Use of community resources and public facilities
18. Family life education
19. Specific occupational skills

The magnitude of this task is obvious. Items 1-18 involve becoming fully independent in one's place of residence and in the community. Item 19 involves becoming fully independent in one's place of work. Even if we consider only the first eighteen skills, it is obvious that the complexity of modern life has made independent living a more and more intricate area for training. The CHART assessment system (Boyan, 1978b) defines more than 800 of these skills. The Camelot Behavioral Checklist (Foster, 1974) lists 399 discrete skills, a large majority of which are concerned with non-vocational independent living skills. The curriculum developed by the Sonoma County Association for the Retarded (SCOR) lists more than 900 skills, nearly half of which are in this non-vocational area (SCOR, 1976). Many other instruments, among them the AAMD Adaptive Behavior Scale (Fogelman, 1975) and PAC-2 (Gunzberg, 1974) include (as part of their approach) lists of tasks essential for independent living in the community. It has been recognized that no matter how "normal" a person's job, his entire life will not be considered "normal" if he must return to an institution, or similar facility, when the work day is over.

Thus, along with specific occupational training, high priority must be given to training in these independent living skills in preschool, elementary, and especially secondary programs. It will also be necessary to establish strong programming in post-secondary, community-based "colleges for life skills." This leads directly to the topic of appropriate educational sequence.

Sequence of Career Education

If we refer to the normal developmental model, we see that success in independent living often comes prior to complete job independence. Many people in our society enter the work force in their late teens or early twenties. By this age, they have acquired the skills needed to live on their own, although many continue to live at home or in dormitories for some time. They have at least gained sufficiently sound judgment to live independently without posing a serious threat to their own safety. They can cope.

Many moderately handicapped persons of eighteen years of age, however, have enormous skill deficits in all the areas of career education. Educators must strive to minimize this situation through balanced career education programs beginning with the earliest years of schooling.

During the preschool and elementary years, training such as the Montessori schools' "practical life activities" should claim a large proportion of teaching time both in schools and in the home. Lent and McLean (1976) present an

interesting perspective in this area:

> Few public school or day-care centers give daily-living skills priority as curriculum objectives. Some personnel frequently consider such teaching appropriate for the home, rather than the school. It is difficult to teach the trainable retarded to perform independently in the daily-living skills. The schools are better equipped than parents to provide such training, and they should accept a major share of the responsibility.

This view is supported by Snell (1979). Another study, however, says that many of these skills are already seen as important by teachers of moderately mentally handicapped (Geiger, Brownsmith, and Forgnone, 1978). In either case, it is undoubtedly true that emphasis must be placed on these skills as an integral part of career education.

During the middle school and early secondary years much of the instruction offered in the public schools could be profitably devoted to these daily living skills, emphasizing self-care, home management, and community-centered skills. This should be coordinated closely with the home life of the student, and involve both parents and teachers, as well as practical experiences in community residential facilities (or apartments) functioning as "satellites" to secondary programs. By having the experiences of shopping, cooking, cleaning, managing, and living in these "satellites," mentally retarded young adults will gain many of the critical skills they need to move out on their own.

Such community-based "life-training" programs would become the counterparts of "work-training" programs in secondary schools. An example of community-based programming similar to this produced the following perspective on changes in the role of the teacher:

> ...The working hours of teachers will change, and teachers will be working in community facilities as well as in schools. Needless to say, some of the difficulties resulting from necessary changes in the teaching day and in teaching locations are unsettling to some classroom-oriented teachers and to some extent to teachers in training who are unprepared for community instruction. (Certo, Brown, Belmore, and Crowther, 1977, p. 124)

Teachers may also be called upon to:

> ...become involved in such activities as job procurement, teaching work and community skills in appropriate settings, and working with non-handicapped individuals who are important in the students' lives, such as job supervisors and other workers. (Pomerantz and Marholin, 1977, p. 135)

Clearly, many past conceptions of professional responsibilities are being

challenged by recent developments in career education.

In some cases it may also be necessary to revise the traditional career education sequence of "career awareness" (elementary), "career orientation and exploration" (early secondary), and "career preparation" (later secondary/adult). It may be possible, or even desirable, to stretch out the exploration phase through the later high school years in order to concentrate more energy on daily living skills and personal-social skills. Each individualized education program will vary with a student's individual needs, and with the amount of coordination between existing local secondary programs and local services to adults. It must be remembered that social-personal skills are at least as critical as specific occupational competencies in the ultimate vocational success of the moderately handicapped. If these skills are mastered before the age of eighteen, even in non-vocational settings, then eventual career success will be greatly enhanced even if specific job task skills are not acquired until after that age.

Following high school, even if high quality work training programs are available, they can be combined with "graduate colleges" for academic, daily living, or personal-social skills. The age range of eighteen to twenty-one is a critical one for effecting a smooth and realistic transition from high school programs to greater independence in the community. It is especially important at this time that a balanced approach to career development continue to be pursued. Our society has a strong identification with job roles, and full time job training may have a great appeal. Nevertheless, in many cases it may be desirable to seek a program which offers several options to full time vocational training.

If, as an adult, a student spends eight hours each day at a job, or in a program devoted exclusively to work training (even assuming that it is a program of high quality), he or she may not have the time and energy to learn dozens, perhaps hundreds, of other critical skills which still need to be assimilated. As Roos (1972) points out in his defense of behavior modification within normalization, the most normal *means* do not always produce the most normal *goals*. In this case, the adult life style which appears most "normal" in activities and routines may not produce the most normal skills of independent living. Therefore, a balanced approach involving the teaching of both specific occupational skills, *and* academic/social/daily living skills will be a necessity in most career education programs.

Young adults coming out of public school programs, or entering the community from larger institutions, should be able to exercise a number of options depending upon individual needs and aptitudes. A flexible program would allow a client to opt for full time work, or for part time work combined with part time training in daily living skills, or for full time training in the latter. This last option would be for those who wish to move out on their own into the community before they approach the vocational sphere. These options would allow an integrated approach to career education, rather than stressing one type of training to the exclusion of the other.

Part or full time "skill colleges" can be conveniently offered in several

locales. Academic skills, including sensory-motor training, could be taught at an educational center, either in the community or on the campus of a community college or adult school. Small community residential facilities, functioning as satellite learning laboratories, would be especially appropriate for self-care and home-centered skills. The community itself, of course, would function as a practical area for learning shopping, mobility, and other related skills (Boyan 1978a, 1978c). As for vocational growth, it may even be possible for a student to begin on-the-job training at an integrated work site in the community, without undergoing a long sheltered work experience.

Such balanced training could be offered at several locales in the community, not only at the student's home. By no means is this argument to be construed as a rationale for keeping students at their own homes for excessively long periods of time. After perhaps several years of part time "skill college" training, a student could be phased more fully into a work-training program. Individual needs and local circumstances will continue to determine the exact nature of individual program plans, but such flexible, balanced plans must receive greater emphasis in career development programs. Little by little, a truly effective, sequential continuum of services (Wolfensberger, 1972) can be created, providing a complete, balanced, and satisfying career education program for the moderately handicapped. Even if independent living and gainful employment come when the student is forty years old, this blueprint for "lifelong learning" will have led to many subsequent years of satisfying, independent living.

Suggested Instructional and Professional Materials

Films

People First Documentary about a growing self-advocacy movement, focusing on a conference of persons with developmental special needs in Oregon. Stanfield House, 900 Euclid St., Santa Monica, CA 90403.

Graduation This film shows a student from a program for the trainable mentally retarded who graduates from high school, but has no program or work-training activities available. Stanfield House (see above)

Like Other People Two physically handicapped persons tell what it is like to try to live a normal life in modern society. Perennial Education, Inc., 1825 Willow Road, Northfield, IL 60093

Coronet Instruction Media, Chicago, IL. A number of films have been produced on subjects such as buying on credit, consumer skills, saving and investing, budgeting, etc.

Food Service A series of ten films designed to teach skills and attitudes needed in this kind of work. National Education Media. Sherman Oaks, CA, 1969.

Motivation Resources, Los Angeles Has produced two films on various aspects of social adjustment, titled *How Do I Look?* and *Everyone Will Thank You.*

Games

Community Experience Game United Community Planning, Boston, Mass. Simulated experiences of dealing with various everyday community situations.

The Ungame Teaching various social-personal skills. The Ungame Co., Gardon Grove, CA 92642.

Assessment

AAMD Adaptive Behavior Scale. Fogelman, Charles J. (Ed.) American Association on Mental Deficiency, 5101 Wisconsin Ave., N.W., Washington, D.C. 20016. (A public school version of this widely used instrument also exists.)

Social and Prevocational Information Battery, Form T, 1978. Larry Irvine, Andrew Halpern, William Reynolds. CTB/McGraw-Hill, 2500 Garden Road, Monterey, CA 93940. An excellent standardized test covering many facets of independent living and career education.

Materials/Program Systems

Basic Life Functions Instructional Program Model, Wisconsin Department of Public Instruction, Madison, Wisconsin. A nearly 700 page curriculum guide covering many areas of independent living skills.

BCP (Behavioral Characteristics Progression). Includes wall charts, observation booklet, and method card books for a complete curriculum. VORT Corporation, 385 Sherman Ave., Palo Alto, CA 94306.

Bender, M., Valletutti, P.J. and Bender, R. *Teaching the Moderately and Severely Handicapped: Curriculum Objectives, Strategies, and Activities,* 1976. (3 volumes) University Park Press, 233 East Redwood St., Baltimore, MD 21202.

CHART for Independent Living. The Clausen House Assessment and Recording Tool, 1978. A comprehensive guide developed for hundreds of skills for adults in community residential facilities. Applicable to lower age groups as well. Available from Clausen House, 88 Vernon St., Oakland, CA 94610. C. Boyan (Ed.)

Edmark Associates. *It's About Time.* P.O. Box 3903, Bellevue, Washington 98009. This company publishes and distributes many other fine materials covering various aspects of career education. Focus is not on vocational education, however.

Fearon Publishers, G Davis Drive, Belmont, CA 94002. A fine source for many vocational and academic titles, including *Planning Your Own Apartment, Getting A Job, Money Makes Sense,* etc. Many materials will be appropriate for educable students.

Foster, Ray W. *Camelot Behavioral Checklist Manual.* Camelot Behavioral Systems, Parsons, Kansas, 1974. A comprehensive list of many career education goals.

Fredricks, H.D., et al. *The Teaching Research Curriculum for Moderately and Severely Handicapped,* 1976. Charles C. Thomas Publishers, 301-327 East Lawrence Ave., Springfield, IL 62717. By the same author: *A Data-Based Classroom for the Moderately and Severely Handicapped.*

Goldstein, H. *Social Learning Curriculum,* 1974. Charles E. Merrill Publishers, 1300 Alum Creek Drive, Columbus, Ohio 43216. For younger students, a curriculum detailing personal adjustment, family interactions, assumption of responsibilities, and other skills.

Gunzberg, H.D. *Progress Assessment Chart of Social and Personal Development (PAC),* Fourth Edition, 1976. Stratford-on-Avon, England: SEFA Publications, Ltd. A number of charts are available for various age and handicap groups.

Janus Book Publishers, 3541 Investment Blvd., Suite 5, Hayward, CA. An excellent source of many vocationally oriented materials and more general titles *(Job Interview Guide, Job Planner, Supermarket Language, Drugstore Language,* etc.) Many materials will be appropriate for educable students.

Mafex Associates, 90 Cherry St., Box 519, Johnstown, PA 15907. Publishers and distributors of a wide variety of materials including many vocational items, educational games, etc. Many materials may be suitable for educable students.

New Reader's Press, Box 131, Syracuse, NY 13210. Publishers of many excellent materials on various aspects of independent living. Titles include *News for You* (current events newspaper at third/fourth grade reading level), an entire series on survival reading by Calvin Gleatsinger, et al, the *Be Informed* series on consumer education, a vocational education series, etc. Many titles appropriate for educable students.

Oakland Training Institute Curriculum Guides. An excellent series of curriculum guides in physical skills, manipulative skills, social skills, cooking, and many other areas, prepared primarily for trainable students. Available at reasonable cost from Oakland Schools, Oakland Training Institute, 2328 Coolidge Highway, Berkely, Michigan 48072.

Project MORE Daily Living Skills Program. A thorough and detailed curriculum guides in physical skills, manipulative skills, social skills, cooking, and many other areas, prepared primarily for trainable students. Available at reasonable cost from Oakland Schools, Oakland Training Institute, 2328 Coolidge Highway, Berkely, Michigan 48072.

Project MORE Daily Living Skills Program. A thorough and detailed curriculum and series covering various aspects of independent living. Skill units include toothbrushing, hand and hair washing, complexion care, use of deodorant, etc. Available from Hubbard Publishers, Box 104, Northbrook, IL 60062.

Roadmap to Effective Teaching. Comprehensive Coordinated Curriculum for Special Education, Monterey County Office of Education, Special Education Department, P.O. Box 851, Salinas, CA 93901.

Training for Independence, a series of several large volumes covering many phases of career education. Especially see Vol. VII, Prevocational/Home Skills, Available through Director of Special Education, Montgomery County Intermediate Unit, Blue Bell, PA 19422.

Sonoma County Organization for the Retarded (SCOR). Independent Living Skills Curriculum: Assessment System and Program System, 1976, 1977. Tony Apolloni, Project Director, Ann Westaway, Ed. A comprehensive assessment and teaching system covering hundreds of skills. Now published as *Becoming Independent: A Living Skills Program,* by Edmark Associates. Includes independent living skills as well as specific vocational skills.

Stewart, J.E. *Community Sign Reading.* Available from Edmark Associates, P.O. Box 3903, Bellevue, Washington, 98009.

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CAREER EDUCATION FOR THE SEVERELY HANDICAPPED

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The purpose of a position statement is not necessarily to provide answers but rather to create discussion which will allow readers to formulate their own ideas and concepts. The intent of this paper is to present a framework for understanding some of the major issues and obstacles surrounding career education for the severely handicapped population.

The rules and regulations for Public Law 94-142 define those students who qualify for both special education and related services — including vocational education, counseling, leisure education and recreation. Among those listed are:

> Orthopedically impaired . . . severe orthopedic impairment which adversely affects a child's educational performance. (This includes those who are severely physically disabled by cerebral palsy, muscular dystrophy, and other orthopedic and/or neuromuscular impairments.)
>
> Mentally retarded . . . significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period . . .
>
> Seriously emotionally disturbed . . . exhibiting one or more of the following characteristics over a long period of time and to a marked degree:
>
> a) an inability to learn which cannot be explained by intellectual, sensory, or health factors;
> b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
> c) inappropriate types of behavior or feelings under normal circumstances;
> d) a general pervasive mood of unhappiness or depression;
> e) a tendency to develop physical symptoms or fears associated with personal or school problems.
>
> The term includes children who are schizophrenic or autistic . . .
>
> Multihandicapped . . . concomitant impairments (such as mentally retarded-blind, mentally retarded-orthopedically impair-

ed, etc.), the combination of which causes such severe educational problems that they cannot be accommodated in special education programs solely for one of the impairments. The term does not include deaf-blind.

(*Federal Register*, 1977, p. 42478)

Although some of these groups do not necessarily belong within the traditional definition of severely handicapped, career education will be discussed here as it relates to the student who may well have more severe difficulties in career education, even though his or her disability is not generally categorized as a severe handicap. This discussion applies to students with:

1. Severe physical disabilities (cerebral palsy, muscular dystrophy, and/or other orthopedic or neuromuscular disabilities),
2. severe to profound mental retardation,
3. serious emotional disturbances,
4. a combination of the above,
5. one of the above handicaps, and who also have accompanying sensory and/or learning handicaps.

In some cases, the focus is on those with severely limited cognitive skills. For them, educational goals will include basic self-help and communication skills with less emphasis on cognitive skills. In other cases, cognitive abilities may not be severely affected. Thus, the problem in focusing on the question of career education for the severely handicapped becomes more complex due to the unique abilities and disabilities of the students. It is crucial that career education for this population, as with others, be extremely individualized and designed for individual interpretation of the concept of "maximum human potential."

One's response to the question "Is career education appropriate for the severely handicapped?" may well depend on the definition of career education. The lack of definition of career education for the severely handicapped population most likely stems from the lack of basic delineation of the severely handicapped group itself. The goal is not necessarily a definitive statement but to establish a broad body of knowledge which may be individually applied to each student. Essentially, there are two sides to this issue of definition of career education (Brolin & Kokaska, 1979).

One revolves around a concept that includes those activities that relate to vocational education and work. Hoyt (1975) defined career education as: "...the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living."

Given the current manpower surplus in this country, it is often difficult to justify preparing severely disabled young adults for a job market already available to only 7% of the population. There has been a shifting emphasis away from the traditional Protestant work ethic orientation toward a concept

of work not necessarily requiring payment. The new goal becomes doing something productive that allows the individual to feel a sense of human worth, regardless of societal obligation. The bias toward economic independence still remains in the work-oriented definition of career education, however.

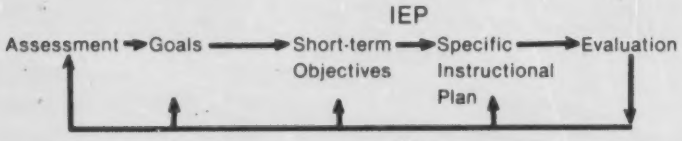
In contrast, the concept of "Life Experience Education" (1976) developed in the Santa Clara County, California schools has a broader perspective. It recognizes nonvocational aspects of preparation for post-graduation living, i.e., those differences which distinguish mere existence from a sense of personal fulfillment. Educational goals in this program include preparation for successful experiences in recreation, social relationships, self-help skills, constructive leisure activities, and employment. Individual abilities and disabilities determine priorities for teaching and training, but the enhancement of the student's quality of life by maximizing his or her ability to participate in it, is of foremost importance.

Traditional career education programs which focus on the acquisition of basic job-related tasks may not be appropriate. Certainly, the expectation for advanced cognitive skills is unrealistic for many students within the population. Personal fulfillment and the process of living may take on new meaning. Skill/goal areas for members of this population will focus on several of the following areas:

1. self-help skills including feeding, mobility, dressing, toileting,
2. self-awareness and socialization,
3. communication skills,
4. academic skills — as appropriate,
5. constructive recreation and leisure activities,
6. optimal independent living skills, including
7. job-related tasks.

Although curricular emphasis will vary with individual needs, early intervention and parental support can be crucial factors in approaching maximum potential for each student. In addition, the influence of teacher expectations on the students' development must be recognized, along with the expectations of parents and other professionals who work on the transdisciplinary team (Brown, Branston, Hamre-Nietupski, Pumpian, Certo, & Gruenwald, 1979).

Given the recent mandates of PL 94-142 for development of the individualized educational program, or IEP, it seems crucial to recognize the role of the IEP in the development of the plan for career education for each student. The IEP is an intermediary step in the total educational process:



The assessment phase provides relevant background information for curricular planning, i.e., the basic information regarding each student's current level of functioning in each area. A developmental approach is then applied to assessment information to develop goals, objectives, and the specifics of the instructional plan. Evaluation should provide continuous data that then affect each student's program. More specifically, a task analysis-oriented approach will be crucial. If the specific steps involved in completion of a given task are not recognized and the sequence is not well-established, valuable learning time will be lost (Bellamy, Horner, & Inman, 1979). In addition, it will be difficult to chart student progress and to evaluate the appropriateness of programming.

Activities to encourage physical development will be crucial at the onset, as will those activities which facilitate environmental awareness and basic communication. Response to the environment should be constantly reinforced. The interrelationship of motor, social, and cognitive development will require the input of physicians, physical and occupational therapists, and teachers.

The elementary level curriculum should continue in the developmental approach in as many curricular areas as are appropriate, continuing the emphasis on physical skills and adding self-help, socialization, communication, cognitive, and recreation skills as appropriate. These skills will form the foundation for the potential development of more sophisticated skills.

As the student develops, more sophisticated skills should be added continually to the curriculum. However, it is necessary to recognize that for many severely handicapped students, the basic developmental curriculum which stresses physical and self-help skills may continue throughout the secondary level. This is most likely for students who are multiply handicapped.

When appropriate, secondary level training should include independent living skills, i.e., those skills which may be necessary and which certainly will enhance possibilities for out-of-home living, even in a sheltered environment such as a group home. These skills include cooking, grooming, housekeeping, and more advanced interpresonal skills. Leisure activities should also be incorporated into the curriculum. With the current growth of recreation programs for special populations, opportunities for participation in recreation programs after school should be increasing. These programs can supplement and facilitate the development of physical and social skills at school.

The developmental skills emphasized throughout the curriculum for the severely handicapped should make possible an objective evaluation of the ability to perform specific job-related tasks. The degree of success in job-related tasks relates to a set of individual personal characteristics: ability to interact with people, sense of timing, general quality of manual skills, decision-making skills, and level of tolerance for the wide range of conditions that might be encountered on the job, even in a sheltered setting.

Specific components of the vocational training portion of the career education curriculum should also be developmental. *A general skills training* program should focus on basic work skills, including work habits, working with others, and making basic decisions. General training should provide data on

more specific abilities which will help define the most appropriate *specific skills training* program to be implemented. One program might emphasize gross physical activities such as lifting, sweeping, or loading; another might require generally finer motor movements, such as assembling small items. Assignment to specific tasks does not restrict a student to those activities only, but does provide a chance to develop those abilities in which the student shows the greatest potential. A *preplacement training program* might follow specific skills training, allowing the student to perform a job related to the specific skills already learned. Lastly, *on-the-job training*, even in a sheltered environment, provides for learning specific facts related to performance of a job in a specific setting, e.g., names of employees, rules, procedures, etc. (Whalley, 1974).

This continuum of training requires regular evaluations. Continuous data collection will determine the effectiveness *and* the appropriateness of the training program. The reality is that without continuous data on all facets of programming, it will not be possible to determine when — and if — the severely handicapped student is ready for the vocational training aspect of career education.

The primary benefits of a career education curriculum will also vary according to the individual needs and abilities of the student. Essentially, education is designed to provide students with skills necessary for existence — those skills which will enhance their quality of life. So, too, with the severely/profoundly handicapped student, education should focus on developing basic values and personal fulfillment. The recognition that vocational employment does not necessarily equal success and the happiness of the individual student will be the basic premises of a "life experience model." Realistically, such a model should be the framework for any program that works with severely handicapped students.

This is not to say that the student with severe limitations is unemployable, but that there are factors to consider in curriculum development. Although their abilities are different, both the student who is severely retarded and the student with a severe physical disability (but who has cognitive ability) face severe difficulties in the employment market. The possibilities for the latter are more often influenced by social attitudes toward physical limitation than they are by the individual's ability to do the job. Each individual seeks personal fulfillment, and it certainly is not our role to determine the potential personal rewards and satisfaction derived by the severely handicapped from a given situation. Although we may not see sheltered workshop employment for a minimal wage as fulfillment of potential, we cannot question its importance for the severely handicapped student. In addition, we must recognize the importance and relevance of the structure of post-school placement in a workshop situation. The student may feel good about him or herself, and derive satisfaction from even the most basic social interaction. At an even more basic level — and certainly one which applies to many severely handicapped students — career education involves requiring basic skills, such as independent feeding and toileting, which serve to enhance the feelings of self-

worth and independence of the severely handicapped individual.

There are, however, barriers to implementation of a career education program for this severely handicapped population. Initially, the problem of defining the term "career education" looms in the forefront. Traditionally, educators do not necessarily include self-help and basic communication skills in the category of career education. Although these skills are often at the core of curricular planning for many students, career education still equals vocational education in the minds of many. Thus, there is a definitional problem that may give rise to feelings that career education is not appropriate for many severely handicapped students. It has been difficult for educators to realign their goals for students — away from the three "Rs" of reading, writing, and arithmetic and toward more basic skills.

The unique abilities and disabilities of the students in this population also may provide barriers to program implementation. Successful programs are no longer measured in growth by years, but rather by days. Yet, with the physically disabled student with good cognitive skills, physical skills development may become so important that other skills are not developed. The need for individualized programming which emphasizes skills and abilities, while trying to remediate weaknesses at the same time, is crucial to successful educational experiences.

In addition to curricular barriers, the continual need for more time and more staffing cannot be overlooked. Even in an ideal one-to-one situation, skills may develop so slowly as to be unsatisfying for both student and teacher.

At the heart of the matter is the need to develop the most workable delivery system for career education services. As previously noted, individualized instructional planning — using the circular pattern of the IEP developmental process — will be essential, as will be early intervention to facilitate development. A developmental approach based on task analysis, with input from all members of the transdisciplinary team, will be vital. Initially, all programming is individually oriented. Group instruction will follow as specific skill similarities are recognized and as social skills and reinforcement needs permit. For the more severely handicapped students, instruction will continue to be school based and extremely individualized. For those who are able to benefit from the vocational training scheme previously mentioned, it is critical that instruction become more community based, both for vocational skills as well as for those independent living and recreation skills that will be continued after completion of the school program. If we expect students to function at any level outside the structure of home and school, it is crucial to help them develop the skills necessary for that to be a successful endeavor.

In conclusion, this is only a suggested framework of career education for a diverse population of students who have a variety of handicaps, all of which have a severe effect on developing career education skills. In order to maximize their skill development, it is necessary to examine all of the components of the program — and all of the people, parents, and professionals who can facilitate that process. If we choose the narrower definition of career education which applies only to vocational preparation, most of these guidelines will

not be necessary for most of our students. But if we choose the broader definition of "life experience education," we will focus on all aspects of development identified by that program:

1. Mastery of self-help skills;
2. Development of a healthy self-concept;
3. Capacity for community involvement (including a variety of daily-living skills);
4. Skills for participation in meaningful leisure time activities (a well-defined free time management system):
   a. recreational experiences,
   b. meeting and retaining friends;
5. Capacity for independent living appropriate to each one's physical and mental capabilities;
6. Development of reliable transportation;
7. Ability to maintain residence away from parents or state institutions; and the
8. Ability to obtain meaningful employment (whether it be homebound, sheltered workshop, or competitive (Howard & Bigge, 1977).

Although the crux of the problem may seem to be involved in definitions of both the population and the career education curriculum, the challenge is clear — to overcome both and to seek development of a program which provides for development of those skills which will enhance the quality of life for each student — not by our definition, but as defined by their unique needs and goals.

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METHODS OF IMPLEMENTING CAREER EDUCATION INTO THE SCHOOLS

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If one can accept the ideas of what the function of career education for the handicapped should be, as presented in earlier chapters, the question of form of implementation is an appropriate one to address at this point. There is no doubt that the Brolin & Kokaska (1979) and Clark (1979) models present a clear focus on direction or function of career education that has implications for methods of implementation. But by themselves these models do not present ideas for implementation.

Teachers are the implementers of any instructional program. What, then, must the teacher do to implement a career education program? Given the model presented in the first chapter, the function of career education for the handicapped can be synthesized through the following list of tasks for teachers that reflects the model's purpose, direction, and content.

1. Integrate, to the fullest extent possible, the assumptions of career education for the handicapped into their instructional activities;
2. Help pupils develop, clarify, and assimilate personally meaningful attitudes, habits, and values;
3. Help pupils develop and demonstrate behaviors reflecting positive human relationships;
4. Help pupils acquire information in occupational alternatives;
5. Help pupils acquire cognitive and psychomotor skills needed for or related to actual job and/or daily living performance;
6. Use or devise methods and materials designed to help pupils understand and appreciate the career development implications of whatever subject matter is being taught; and
7. Use career-oriented methods and materials in the instructional program, where appropriate, as one means of motivation for learning.

At this point we can begin considering service delivery. Delivery of content can be selected from among three major curriculum approaches (infusion, separate programming, or a combination of infusion and separate programming), and three basic educational environments (regular class, resource room, and self-contained special class).

Most professionals in special education are in fairly strong agreement regarding the nature of the major environmental or administrative arrangement options, i.e., regular class, resource center, and special class. While there

are strong advocates for one particular alternative by some, there is increasing recognition of a need to have all three options available for a continuum of services. On the other hand, there is apparently not a very clear understanding of the nature of curriculum approaches in career education programming. The division lines are drawn sharply between advocates of infusion versus advocates of separate programming. For this reason the remainder of this chapter will focus on this problem area in career education delivery.

What do we mean by *infusion, separate programming,* and *a combination approach?* The following distinctions are made:

Infusion — An approach that incorporates or integrates career education concepts and skills into other subject matter content, to make that content more motivating, more relevant, more clear, or more concrete. In this approach, the primary learning objectives are focused on the subject matter content. For example, when an instructional objective in a science class focuses on the concept of toxicity, instructional activities can include learning about poisons found in the home. This presents a science concept in the context of a daily living skill.

Separate programming — An approach that separates career education concepts and skills from other subject matter to the extent that the career education concepts and skills are, and remain, the primary objectives for learning. While basic skill subjects or other subject matter content may be used as activities or means to reach the career education concept or skill objectives, they remain secondary to the primary objectives directed toward student attainment of career education concepts and skills. There are three basic types of separate programming. Each of these are listed below, with examples of each type:

Total Curriculum: Special career education curriculum with total focus on career education concepts and skills.

Separate courses: Year long course, e.g., "Career Development;" semester long course, e.g., "Personal Development;" mini-course, e.g., a six or nine week course on a specific cluster of skills, such as, "Basic Child Care" or "Handling Your Money."

Unit teaching: Five to ten units per year of instruction on career education concept(s) or skill(s), e.g., "Community Helpers," "Manners," "Who Am I?" or "Job Interviews."

The selection of one curriculum approach to implement in a school program should be made with an understanding of some of the distinct advantages and disadvantages of its use. The following paragraphs provide some of these advantages and disadvantages to aid in determining which approach should be used.

Infusion

Some of the possible advantages of infusing career education content into a traditional academic curriculum are:

1. Infusion makes abstract academic content more concrete, more relevant, and consequently, easier to learn.
2. Infusion increases the possibility to expose students to a wide range of career education concepts and skills, within the context of what schools are presently best prepared to do.
3. If infusion is operative in the entire educational program, there is some assurance that the content of the curricula in regular classes will be more appropriate for many handicapped children.

Some of the possible disadvantages of the infusion approach in delivering a comprehensive model of career education for the handicapped are:

1. Infusion tends to take an "activities" approach. This means that career education activities are used to enhance the learning of concepts and skills of a basic subject matter area. The concepts and skills inherent in the activities related to career education are left to incidental learning.
2. Infusion does not lend itself to evaluating how much career skills learning has occurred, because the evaluation focuses on the concepts and skills associated with subject matter.
3. Infusion does not encourage, or in many cases *permit,* the repetition of career development concepts and skills needed by many handicapped children.
4. Infusion, as it is typically used, is not systematic enough to assure that the scope and sequence of the desired concepts and skills are covered.
5. Infusion depends upon the willingness and ability of teachers to incorporate the concepts and skills of a comprehensive model into each of the basic academic skill areas. In essence, it is a voluntary commitment unless the school district or building principal requires it, monitors it, and provides support in doing it through inservice training, materials, and resources.

Separate Programming

There are some distinct possible advantages for separate programming of a comprehensive career education model for the handicapped. Among these are some cited by Gibson (1972):

1. Separate programming assures that concentrated attention will

be given at some time during the year to the goals and objectives for career education for a given level.
2. Separate programming communicates to pupils the importance of career development.
3. Separate programming makes more of an impact and leads to more effective and efficient learning by being the focus of learning.
4. Separate programming offers an opportunity to "tie together" the various career development concepts and skills that pupils may have been exposed to over a period of time at home, in school, or the community.
5. Separate programming can serve as a motivating technique for upcoming basic subject matter content and experiences.
6. Separate programming typically increases the undertaking of special activities and the extensive use of community resources.

As persuasive as these advantages for separate programming might be, there are some significant disadvantages. These include:

1. Separate programming adds to an already crowded, highly competitive curricular marketplace.
2. Separate programming as a separate course leads to specialization, requiring that it be taught by someone with training in the area. Subject matter programming eventually leads to certification regulations.
3. Separate programming as a curriculum or subject matter course is difficult to implement without a well-developed, systematic, sequential curriculum guide or a published curriculum series. Neither of these now exist.
4. Separate programming of career education concepts and skills in a total curriculum or subject matter format would require some standardized achievement assessment instruments to assess the functioning level of students and to provide data for effectiveness and instruction. These do not presently exist.
5. Separate programming of certain components of the comprehensive approach to career education presented in the model in Figure 1-1 tends toward artificiality. That is, there are certain content areas relating to actual job or daily living skills that logically belong in basic subject matter instruction. Certain aspects of consumer education, for example, should be taught in math and social studies; certain aspects of human sexuality and body care should be taught in science or health; and such critical job and daily living skills as reading, writing, spelling, and arithmetic should be taught separately at the elementary level.
6. Separate programming could become a type of tokenism in-

tended to satisfy the advocates of career education, but which effectively keeps the academic areas "pure," by avoiding infusion.

One does not have to make a choice of infusion or separate programming. A *combined approach* can be used. This requires a high degree of planning, coordination, and cooperation to work effectively. Otherwise, redundancy or gaps are likely to occur in the scope and sequence planned. An example of this approach at the elementary level would be infusing career education content into reading, arithmetic, language arts, social studies, and science instruction through carefully selected career education activities and materials to complement the objectives set for these subjects. In addition, a systematic presentation of units of instruction (K-6) would be planned to focus on specific concepts and skills in career development. This might involve up to eight or ten units per year for each grade level.

An example of the combination approach at the secondary level would be the planned, systematic use of infusion in all subject matter areas (academic, physical education, fine and applied arts, and vocational-technical) through specified types of career education activities and materials appropriate for the course objectives. This effort could be combined with planned unit teaching in each of these areas and well-planned courses focusing on major career development needs for the changing adolescent, from junior high school through high school or even post-secondary school programs. The advantages of such an approach include:

1. A combination of infusion and some separate programming permits a balance between teaching critical academic skills (with career education content incorporated for application) and critical career education concepts and skills (with basic skills incorporated as problem-solving tools or aids to making certain job or daily living demands go easier).
2. A combination approach provides a compromise in the issues of adding to an overcrowded curriculum and poses less of a threat to subject matter specialists.
3. Combining the two approaches permits the teacher to be involved in the total education process by retaining responsibility for covering all critical areas, but without having to take on certain instructional goals personally.
4. Infusion and separate programming combined provide a unique opportunity to tie together more effectively the concepts and skills learned in both academic and career education instruction.
5. A combination of infusion and separate programming provides the handicapped pupil in the regular classroom the critical elements necessary for it to be a "responsive environment," and not a restrictive environment.

Although there are some potential disadvantages of a combination approach, the major disadvantage is that there is no way to control the infusion aspect of it. A school district or building principal can prescribe certain teaching units or courses to be taught separately and these can be monitored rather effectively. Infusion can b urged or encouraged, but there is no really effective way of determining whether it has been done appropriately or at all.

The strength of the arguments in favor of a combination of the infusion and separate programming approaches appears clear. If all handicapped students were alike in terms of functioning level, the selection of the combined approach would be obvious. However, the severity of handicap is as important a consideration in curriculum approaches as it is in considering administrative arrangements for providing the least restrictive environment. In addition, there may be some desirable differentiations in types of delivery based on grade level. Figures 6-1 and 6-2 reflect how these variables relate to one another to yield possible different curriculum approaches.

Figure 6-1
RECOMMENDED APPROACHES TO DELIVERY OF CAREER EDUCATION INSTRUCTION BASED ON GRADE LEVEL, DEGREE OF HANDICAP, AND INSTRUCTIONAL SETTING AT THE ELEMENTARY LEVEL

	Mildly Handicapped		Moderately to Severely Handicapped*	
	K-3	4-6	K-3	4-6
Regular Class or Resource Room	Infusion and Unit teaching	Infusion, Unit teaching, and Mini-courses	Infusion, Unit teaching and Separate subjects (semester long)	Infusion, Unit teaching and Separate subjects (semester and year long)
Special Class	Infusion, Unit teaching, and Separate subjects (semester long)	Infusion, Unit teaching, and Separate subjects (semester and year long)	Total Curriculum	Total Curriculum

*Moderately or severely handicapped in regular grades or resource rooms will most likely be visually handicapped, auditorially handicapped, and/or learning disabled pupils.

Figure 6-2
RECOMMENDED APPROACHES TO DELIVERY OF CAREER EDUCATION INSTRUCTION BASED ON GRADE LEVEL, DEGREE OF HANDICAP, AND INSTRUCTIONAL SETTING AT THE SECONDARY LEVEL

	Mildly Handicapped		Moderately to Severely Handicapped*	
	7-9	10-12	7-9	10-12
Regular Class or Resource Room	Infusion, Unit teaching, Mini-courses and Separate subjects (semester long)	Infusion, Unit teaching, Mini-courses and Separate subjects (semester and year long)	Infusion, Unit teaching, Mini-courses and Separate subjects (semester long)	Infusion, Unit teaching and Separate subjects (semester and year long)
Special Class	Infusion, Unit teaching, and Separate subjects (semester and year long)	Infusion, Unit teaching, Mini-courses and separate subjects (semester and year long)	Total Curriculum	Total Curriculum

*Moderately or severely handicapped in regular grades or resource rooms will most likely be visually handicapped, hearing impaired, and/or learning disabled pupils.

CONCLUSION

Delivering career education content in instructional programs for handicapped students is difficult. Uncertainty regarding purpose and content, complexities of approaches, environments, and administrative arrangements, and variability in severity of handicaps make the task for educators even more difficult. Knowing some alternatives and awareness of what the problems are should be the starting point. That is a concern for *function*. Once the function of career education for the handicapped is established, then some alternative *forms* of delivery can be developed.

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A Curriculum Guide for Teachers of Trainable Mentally Retarded Children ED 067 805

A Guide for Implementation of a Career Education Program: Elementary Grades. Contemporary Curriculum for Career Development Series ED 074 289

A Manual for the Implementation and Administration of Career Education Programs ED 076 752

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Career Education: Strategies for Methods Teachers ED 112 071
Curriculum Development for Young Deaf Children with Specific Learning Disabilities. (Ages 4-8) ED 046 167
Curriculum Guide in Occupational Preparation for the Disadvantaged and Handicapped ED 069 084
Development of Modular Courses in Vocational Curriculum to Facilitate Individualized Scheduling to Meet the Occupational Objectives of Each Student ED 073 234
Guide for Establishing a Career Education Program: K-12. Contemporary Curriculum for Career Development Series ED 074 288
Guidelines for an Orientation and Exploration Career Education Program in Middle School/Junior High ED 073 318
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Part III

ISSUES

Recent federal legislation has created a number of issues that must be dealt with in all educational undertakings. The relatively short history of career education has both positive and negative implications in relation to these issues. On the positive side, there are few, if any, long established methodologies and procedures that must be changed to comply with the laws. On the negative side, practitioners have not had a grace period in which to experiment with different methodologies without fear of violating provisions of these laws. Part III provides the reader with views on some important issues that must be considered by professionals in career education. Also in this section is a more general statement of possible implications of Public Law 94-142 for career education.

THE ASSESSMENT PROCESS AS A COMPONENT OF CAREER EDUCATION

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The role of the assessment process in career education is basically the same as in any subject matter area — to provide information on the needs of the student and the most effective methods and materials that can be used to help him/her meet these needs. For the purposes of this chapter the term "assessment" will be used to refer to the process of determining the student's instructional needs, as opposed to ascertaining whether or not a given objective has been reached.

Specifically, in the area of career education, the assessment process can provide information in the following areas:

1. *General training needs in each of the career education component areas.* These can include (a) values, attitudes, and habits, (b) human relationships, (c) [illegible] information, and (d) daily living, cogniti[illegible] skills acquisition.
2. *Specific occupational tra[illegible]* This information can be gathered as the student enters th[illegible] and senior high school years and be geared to such top[illegible] as the occupational cluster areas on which to concentrate, [illegible]nd the specific skills training needed by the student.
3. *Best training methods and materials.* This information can be compiled throughout the student's program, beginning in early elementary years. Data in this area may include the most effective learning modalities for the student (i.e., auditory, visual, kinesthetic), and the most effective method of presenting information (i.e., demonstration, verbal instructions).
4. *Best program options throughout and at the end of the program.* This can include such areas as enrollment in a vocational education program or special education work experience program during high school, or placing the student in on-the-job training or in a technical program after graduation.

Types of Information to be Gathered

Assessment in relation to career education should be viewed as a continuous process rather than as an isolated one to two week segment of the student's program. This process should also run parallel to the career education program, gathering information on the student's performance during each

program stage and providing needed information at each decision point.

To provide the general types of program planning and decision-making information discussed in the first section of this chapter, the assessment process must yield specific information in a number of different areas. These areas include (a) medical, (b) educational, (c) personal/social, (d) interests, (e) work habits and attitudes, (f) aptitudes, and (g) learning style (Sitlington & Wimmer, 1978). How important each of these areas is, and the specific information to be gathered in each area, will depend upon the student's present stage in the career development sequence, and upon the decisions that need to be made at that stage. Table 7-1 presents some typical kinds of information that should be gathered. It is essential that each person involved in the assessment process take time to decide which areas are the most important for his/her specific program and handicapped population.

Table 7-1
TYPES OF INFORMATION TO BE GATHERED DURING ASSESSMENT PROCESSES*

Please rate each of the following types of information with:
+ for very important ✓ for useful .. for not important or not useful

A. MEDICAL INFORMATION
- __ Visual and auditory acuity
- __ Physical condition and capacity
- __ Physical disabilities
- __ Chronic illnesses
- __ Medication
- __ Others (please list)

B. EDUCATIONAL INFORMATION
- __ Reading Level (Grade)
- __ Reading comprehension
- __ Sight vocabulary
- __ Functional reading skills (job applications, TV Guide, bus schedules, etc.)
- __ Functional math skills (use of rules, cooking implements, making change, etc.)
- __ Level of addition and subtraction skills
- __ Level of multiplication and division skills
- __ Communication skills (printing/writing, sentence structure, spelling)
- __ Verbal skills (basic conversation skills, nonverbal/body communication skills)
- __ Others (please list)

C. PERSONAL/SOCIAL INFORMATION
- _ Acceptance by student of special education placement (if applicable)
- _ Motivational and incentive values
- _ Ability to get along with peers
- _ Ability to get along with authority figures (parents, teachers, boss)
- _ General appearance
- _ Consistency of student's moods
- _ Use of social amenities
- _ Others (please list)

D. INTERESTS
- _ Vocational experience/knowledge base
- _ Self-appraisal of abilities
- _ Projected desirable life styles
- _ Preference according to occupational clusters
- _ Preference for working conditions
- _ Preference for types of work (data, people, things)
- _ Others (please list)

E. WORK HABITS AND ATTITUDES
- _ On-task behavior and consistency of performance
- _ Speed, accuracy, and precision of work
- _ Adjustment to repetition
- _ Endurance/Stamina
- _ Self confidence
- _ Need for supervision
- _ Self direction
- _ Ability to follow directions
- _ Acceptance of authority
- _ Relationships with fellow workers
- _ Ability to work under pressure
- _ Conformity to schedule
- _ Others (please list)

F. APTITUDE INFORMATION
- _ Gross motor skills
- _ Fine motor skills
- _ Manual and finger dexterity
- _ Eye-hand coordination
- _ Ability to work with large/small tools
- _ Others (please list)

G. LEARNING STYLE
- __ Personal reinforcers
- __ Best method(s) of instruction
- __ Decision-making skills

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In this chapter each of the available assessment techniques will be presented and the types of information that can be gained through its use will be identified. Some of the approaches are best suited to provide only one kind of data, while other techniques can be used to gain information in several areas. Simply because of availability, the majority of the techniques described will relate to occupational activities or work. Some of these techniques are more useful with students at specific stages in the career education sequence, while other methods can be used at all stages. The types of information that need to be gathered on each student, and the suitability of each approach for providing that information, are crucial.

Job Analysis

The first process is one relating primarily to occupational assessment; it involves examining the job rather than the student. It is a necessary part of the assessment sequence, however, because it alerts the professional to the skills required by the jobs in which students are placed and thus provides a clue about the types of information that need to be gathered on the student. This process is essential for those students at the junior and senior high school age who are narrowing in on a specific job or a specific occupational cluster. It is also an indispensable tool for work experience coordinators who are placing students on in-school or community jobs. Information from a job analysis, however, can also be useful to teachers working at the elementary levels because it shows what skills in the career education components are most essential for initial employment placement. Examples of this could be job analysis in sorting, classifying, cutting, cleaning, stacking, or object assembly.

Job analysis is the process of observing a job and determining the operations, tasks and duties involved, along with the skills and abilities prerequisite to actual job performance. The process is very similar to task analysis used by most classroom teachers to specify the components of a learning task. Job analysis differs from task analysis, however, in that it may not require the same level of specificity and includes information outside of actual performance skills (i.e., fringe benefits and environmental conditions).

In order to conduct an analysis of a particular job or job family, it is important to use a predetermined and uniform procedure for recording observa-

tions. While there are several standard forms available (U.S. Department of Labor, 1972), it is often more efficient to develop a form that incorporates the information that is important to the particular purpose of the analysis. A job analysis should include actual observation of a worker performing the job, as well as interviews with employers, supervisor, and the worker. More than one observation period at different times of the day or week may be necessary for jobs with varying duties and tasks.

Career Development Assessment Techniques

The following sections present each of the assessment techniques that might be used to gather information on the student. The medical examination is the prerequisite step to any of these approaches and consists of referring the student to a doctor or clinic for a general health checkup. This segment of the assessment process is essential to overall planning for the student. It should be conducted before any type of actual job experience is undertaken.

Paper and Pencil Tests

Paper and pencil tests are the assessment technique least like the real world of work. This technique can, however, provide valuable information on the student in such areas as academic skills, occupational information, values, attitudes and habits, and general and specific vocational interest. A selected list of commercially available paper and pencil tests is included at the end of this chapter. As with all commercial instruments, the test should be used only if (a) the information provided by the test is useful, (b) it is reliable and valid, (c) the norming population is appropriate, and (d) the student can understand the questions.

The paper and pencil testing approach is one of the most useful for the elementary grades since it can provide information on many of the career education component areas during the awareness stage. If commercial instruments cannot be found which provide the needed information, carefully developed self-constructed assessment instruments are acceptable. If they are developed using appropriate test construction procedures, such instruments have the advantage of providing the exact information needed on the student.

Manual Dexterity Tests

Standardized aptitude tests have been widely used for many years for vocational prediction. Those most commonly used are the manual tests which focus specifically on performance in such areas as fine and gross motor dexterity, use of tools, and speed and accuracy of performance. Advantages of these instruments include quick and easy administration, reasonable price, and fairly extensive empirical development procedures. Many industrial operations require potential employees to take tests of this type and use the scores to select employees. While these instruments have been widely used to predict employee success, it is important that the user be aware of the stated purpose of a specific instrument, and take care in extending the interpretation of test

results beyond that purpose. If a particular test purports to measure "small finger dexterity", results indicate only the level of such dexterity. Positive results cannot necessarily predict success on a job requiring small finger dexterity since there are critical requirements present in an actual job which cannot be duplicated by a test of this type. These tests are useful, however, in quickly assessing student strengths and weaknesses in particular skills.

Manual dexterity tests are obviously most useful in providing information on psychomotor skill development. This is especially useful in relation to assessment for readiness in acquisition of job and daily living skills. They can, however, also be used to observe such areas as the student's work habits and attitudes, the ability to follow directions, physical endurance, and tolerance of stress. A list of the most commonly used manual dexterity tests is provided at the end of this chapter. The same precautions need to be used in selecting these tests as with the paper and pencil tests previously discussed.

Commercially Developed Assessment Systems

Commercially developed assessment systems were the first large scale attempt to provide extensive standardized "hands on" evaluation of work potential in a packaged form. They can be useful as one component of an assessment program during the occupational choice process when the exploration and preparation phases are in progress. The major advantage of these systems is that the development and standardization have already been done. This represents a major savings in staff time when establishing a new program. Disadvantages include high cost (up to $20,000) and the fact that the systems will not stand alone, but must be supplemented by other techniques (Dunn, 1973). In addition, the systems often fail to take into account geographic variables, requiring additional development to be done locally, and must be used without modification if a student's scores are to be compared to the standardization group represented in the norm tables. A list of the major commercial systems is provided at the end of the chapter. Brolin (1973) discusses many of these systems and also presents questions that should be asked when considering purchase of a commercial system.

Self-Developed Work Samples

Work samples are simulated representations of work tasks or activities and may or may not represent an actual job or component of a job. Work samples are also most effective during the exploration and preparation phases of a career education program. Along with providing job exploration and allowing simulated jobs to be brought into the classroom, work samples can be used to assess a student's ability to perform a specific work task, use specific equipment, or meet the skill requirements of particular types of work. In addition, work samples can provide information in such areas as social skills, work habits, endurance and psychomotor skills.

Work samples can be as large or as small, as realistic or artificial, as is necessary to fulfill the particular purpose. A simple work sample might present an alphabetizing task in the form of mail sorting or filing. A more complex work sample might require a student to assemble a piece of equipment follow-

ing written or verbal instructions exactly as the operation takes place in a local industry. A given sample may assess student ability to perform a job for which placement is being considered, or may assess specific abilities (i.e., color discrimination, eye-hand coordination) in a more general manner. The latter type of sample is more often used earlier in the assessment process for determining current level of student abilities.

Brolin (1976) and Sitlington and Wimmer (1978) present the basic steps in developing a work sample. The reader is referred to these sources for more information.

Behavior Analysis Techniques

Behavior analysis and the many techniques associated with this process have been used in the field of special education for many years. The intent here is to apply the existing techniques as a career development assessment tool. The rationale for the use of behavior analysis as a step in the assessment process arises from a need within career education programs to do more intensive training of the handicapped. This process would be most useful.

Basically, the steps in using behavior analysis are:

1. Specify the behavior(s) to be observed.
2. Describe the training environment (antecedent and subsequent events).
3. Measure the initial strength of the behavior(s) (baseline).
4. Begin the treatment (training) program.
5. Continue the training program until behavior change can be shown to be a result of program component(s).

The emphasis in the use of behavior analysis as an assessment tool should be on the effect of individual components of the training program, rather than on the resulting behavior change. The "IS - DOES" equation as formulated by researchers in the field of precision teaching (Kunzelman, 1970) can facilitate analysis of these components. This equation is presented below:

In this equation the top line of components are the existing conditions in any training sequence. In order to prove that any one of these components is having an effect on the behavior of the student, all components except the one in question should be held constant as the steps in the behavior analysis process are implemented. If a change in the one component results in a change in the student's behavior, then that component moves to the "DOES" side of the equation and is said to have an effect on his/her performance.

By using this procedure in a sheltered or semi-sheltered situation, such as a classroom or workshop, the career education staff memeber can systematically manipulate aspects of the student's environment to determine what working or learning conditions, instruction, or reinforcers work best for that student. An individualized training and/or placement program can then be developed around this information.

Situational Assessment

One of the final stages of the career development assessment sequence is situational assessment. Informally defined, this technique encompasses systematically observing the handicapped individual in an actual daily living or work situation. These situations could initially be in-school situations arranged specifically for assessment prior to community placements. Eventually, however, information should be gathered on the student in the environment where he/she will be expected to function, whether it be independent or sheltered living, or semi-competetive or competitive employment situations.

This procedure is one of the most important ones in providing information on the general career development training needs of the student, such as habits and attitudes, for it is in the "real life" situations that previously unforeseen strengths and weaknesses of the student emerge. This procedure is also an example of how the assessment process can be integrated into the ongoing career development program, transforming general impressions of supervisory personnel into data-based conclusions.

Two things are crucial in every situational assessment. First, the instruments used for observation should focus precisely on the behaviors and attitudes of the student that the instructor or supervisor is trying to observe. Second, the instruments used should provide as objective a reporting as possible of these behaviors.

Some type of observational check list or rating form is usually completed by the individual assessing the person being evaluated. It is critically important that the forms used by raters provide the type of information that will aid in further planning and work with the student. Whether the program develops a form or uses an existing form, the criteria for selection must be that the information obtained will provide necessary and valid data on the student in the situation. Esser (1975) provides a brief description of the major rating scales and discusses the basic rating scale formats.

SUMMARY

Assessment in career education is the continuous process of obtaining information about student performance in areas related to the career education components. The information is useful both to habilitation personnel and to the students themselves. Students should be helped to use the results of assessment procedures for personal decision making throughout the career education continuum, from awareness to post-school adjustment.

The various techniques for vocational assessment discussed here are not mutually exclusive. Several different techniques may yield data about varying information areas. For example, student work habits may be directly observed through the process of behavior analysis, but may also be observed in a secondary manner during administration of manual dexterity tests, commercial assessment systems, and self-developed work samples. It is beneficial to plan for observations of this type prior to administration rather than to note observations occasionally in a spontaneous manner. Table 7-2 summarizes each of the assessent techniques in terms of the type of information for which it is commonly utilized.

Table 7-2
ASSESSMENT TECHNIQUES AND AREAS OF INFORMATION

AREAS OF INFORMATION	MEDICAL EXAMINATION	PAPER & PENCIL TESTS	MANUAL DEXTERITY TESTS	COMMERCIAL ASSESSMENT SYSTEMS	SELF-DEVELOPED WORK SAMPLES	BEHAVIOR ANALYSIS	SITUATIONS ASSESSMENT
Medical	•						
Educational		•					
Personal/Social		•	•	•	•	•	•
Interests		•		•	•		
Work Habits & Attitudes			•	•	•	•	•
Aptitudes/Skills		•	•	•	•	•	
Learning Style/ Potential		•	•	•	•	•	

Adapted from Clark (1975)

Vocational assessment has been the responsibility of rehabilitation centers in the past. If career education is to be a viable framework for American education and to prepare students to function as well adjusted adults, assessment must become the responsibility of the public schools. Handicapped students, in particular, need the systematic feedback from the procedures to aid in career decision making from the elementary through the secondary years. It is not enough to make them aware of career roles available to them without providing the feedback which enables choices to be realistic.

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A Review of Career Education Evaluation Studies. Monographs on Career Education ED 141 584

A Survey of Student Needs and Priorities Related to Career Education ED 124 832

An Evaluation of the Effects of a Planned Career Education Program for Grades 7, 8, 9, and 10 in a Rural Area ED 087 861

An Instrument to Determine Career Awareness ED 082 061

An Investigation of Student's Scores on the Kuder Occupational Interest Survey as an Indicator of Program Outcomes; Employer-Based Career Education. Technical Report #40 ED 110 646

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Career Education Concept Inventory ED 087 869

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Career Education Needs and Assessment. The Administration of Career Education: Module 3 ED 115 920

Career Education Program Assessment ED 147 503

Career Planning and Follow-up Study, Spring 1971 ED 059 461

Checklist for Reporting Results of Student Outcome Studies in Career Education ED 142 706

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Evaluation of Four Career Education Media Used by the Indiana Career Resource Center. Research and Evaluation Report Series. Report #2: Career Education/Career Development Study ED 085 489

Extending the Model of Program Evaluation: Career Graduates and Their Employers ED 092 183

Guide to Proposal Evaluation for Vocational Education of the Handicapped ED 074 274

Guidelines for an Orientation and Exploration Career Education Program in Middle School/Junior High ED 073 318

Guidelines for Project Design, Implementation, Monitoring and Evaluation ED 063 263

Matrix of Basic Learner Outcomes for Career Education ED 114 497

Measurement, Diagnostic and Prescriptive Components of a Career Education Learning System ED 117 344

Methodology for the Evaluation of Career Decision Making Skills in Rural Schools. Final Report ED 145 134

National Assessment of Educational Progress Objectives for Career and Occupational Development ED 059 119

Needs Checklist for Career Education ED 099 564

Objectives for Career Education at the Elementary Education Level ED 078 137

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Review and Analysis of Instructional Performance Objectives in Vocational Education Curriculum ED 080 688

Self-Awareness Test Instrument. Final Report ED 097 535

Student Needs Assessment Guide ED 110 775

Task Analysis: A Systematic Approach to Designing New Career Programs ED 064 557

The Career Education Assessment Guide ED 120 475

The Efficacy of Career Education, Academic Achievement ED 122 003

The Efficacy of Career Education, Career Awareness ED 121 953

The Efficacy of Career Education, Career Decision-Making ED 122 004

The Efficacy of Career Education, Other Ways of Assessing Effectiveness ED 122 005

The First National Assessment of Career and Occupational Development: An Overview. Career and Occupational Development Report #05-COD-00. ED 137 604

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The Vital Role of Testing in Career Guidance ED 078 051

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Validation of the Competencies Needed by School Personnel to Implement Career Education. Phase II of a Professional Development Study for Massachusetts, Vol. II ED 146 409

Vocational Assessment Systems: Applications in Programs Serving Special Needs Populations ED 106 654

Workshop Handbook: Writing Measureable Objectives for Career Education ED 064 502

Manual Dexterity Tests

Bennett Hand Tool Dexterity Test (Psychological Corporation). Ordinary mechanic's tools are used to disassemble and assemble a series of bolts.
Crawford Small Parts Dexterity Test (Psychological Corporation). Small tweezers and screwdriver are used for placing pins and collars and small screws in a series of small holes.
O'Connor Finger Dexterity Test (Western Psychological Services). Three metal pins are placed by fingers in a series of small holes.
Purdue Pegboard (Science Research Associates). Pins and washers are placed in a series of small holes, using each hand, then both hands.
Stromberg Dexterity Test (Psychological Corporation). Colored round pegs are moved from one board to another using finger and hand-arm movement.
Minnesota Rate of Manipulation Test (American Guidance Service). Round pegs are moved from one board to another with one hand, then both hands, utilizing finger and hand-arm movement.
Minnesota Spatial Relations Test (American Guidance Service). Metal cut-outs are matched with corresponding shapes in metal board, using perceptual abilities.
Pennsylvania BiManual Worksample (American Guidance Service). Both hands are required to screw nut on bolt and place in series of holes.

Commercial Assessment Systems

1. *Brodhead-Garrett Vocational Skills Assessment and Development Program*
   Brodhead-Garrett
   4560 East 71st Street, Cleveland, OH 44105
2. *Comprehensive Occupational Assessment and Training System*
   PREP, Inc.
   1575 Parkway Avenue, Trenton, NJ 08628
3. *Hester Evaluation System*
   120 South Ashland Boulevard, Chicago, IL 60607
4. *Micro-TOWER*
   ICD Rehabilitation and Research Center
   340 East 24th Street, New York, NY 10010
5. *The Singer Vocational Evaluation System*
   Singer Education Division, Education Systems
   3750 Monroe Avenue, Rochester, NY 14603
6. *Talent Assessment Program*
   Talent Assessment Program
   7015 Colby Avenue, Des Moines, IA 50311
7. *The Valpar Component Work Sample Series*
   3801 East 34th Street, Tuscon, AZ 85713
8. *Vocational Information and Evaluation Work Sample*
   Vocational Research Institute
   1913 Walnut Street, Philadelphia, PA 19103
9. *Wide Range Employment Sample Test*
   Jastak Associates, Inc.
   1526 Gilpin Avenue, Wilmington, DE 19806

SELECTED ISSUES IN USING CAREER EDUCATION MATERIALS WITH HANDICAPPED STUDENTS

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> *...whatever else it has done, career education has spawned a proliferation of instructional materials that are inevitably carrying social, economic, and psychological messages to an increasing number of young Americans.*
> *(Komoski, 1976)*

The materials exhibit area at the Commissioner's National Conference on Career Education, held in Houston, Texas in November, 1976, filled a significant proportion of the available space in the Astrohall, and was manned by nearly 90 exhibitors displaying their wares. All of the materials displayed were, of course, clearly labeled "career education," although many looked vaguely familiar underneath their new covers. Komoski's (1976) observation on the proliferation of instructional materials spawned by the career education movement is well-founded. Many of the new materials, and even some of the "retooled" materials are quite good and very useful in teaching career education related knowledge to many student populations. The actual concept of career education, however, implies movement away from knowledge-based classroom settings toward a wider environment where learning comes from actual experience. This does not mean that a curriculum is no longer necessary, but it does indicate that a somewhat different curricular orientation is necessary; one that does not rely as much on the format that typifies many instructional materials. Unfortunately, such curricula and the trained educational personnel, with the skills and resources necessary to develop or implement them, have not appeared. Even within the area of infusion of career related content into basic subject areas, many teachers rely on specific instructional materials to provide the needed content.

> The reality is that for the vast majority of schools in this country, career education will become whatever the instructional materials of career education become...We know what they are like today...and with a few encouraging exceptions, they are a pretty dismal display. (Komoski, 1976, p. 8)

The quality of the available instructional materials becomes a critical issue when classroom teachers rely on them as the basis of classroom instruction. The

results of a National Survey and Assessment of Instructional Materials, carried out by the Educational Products Information Exchange (EPIE), indicate that the 15,000 teachers surveyed at all curriculum levels are currently using published instructional materials to organize from 90 to 95% of all available teaching/learning time in their classrooms. If these findings represent the "state of the art," it is imperative that both preservice and inservice teachers be well acquainted with procedures for selecting instructional materials in general, and career education materials in particular.

The Educational Products Information Exchange (EPIE), under a contract from the National Institute of Education carried out this large scale survey and evaluation of career education instructional materials in 1974-75. EPIE contacted nearly 1,000 publishers by mail and telephone and invited them to submit any career education materials from their product lists for evaluation. They received 1,275 materials from 191 commercial developers. After eliminating any materials published prior to 1971, specific skill training materials, biographies, periodicals, and pamphlets/brochures, they retained a sample of 558 materials including both print and audio-visual formats. The results of their evaluation are contained in Volume 2 of the *Career Education S*E*T* (1975). EPIE also developed guidelines for school personnel to use in evaluating career education materials for particular settings and purposes. These guidelines cover four constructs for organizing material evaluation: (1) goals and objectives, (2) scope and sequence of content, (3) methodology of learning/instruction, and (4) evaluation and assessment. The EPIE materials also include excellent guidelines for evaluating the instructional setting (community, school, students and teachers) in order to facilitate a match between materials and the instructional program.

Both EPIE and the National Institute of Education felt it vital, in considering career education materials, to address the issues of racism and sexism in the materials. These issues are obviously important on a general level, but may take on particular importance when dealing with handicapped populations who may be "doubly disabled" if subjected to racial and/or sexual stereotyping. Most textbooks and instructional materials actually provide two distinct forms of knowledge to the student (Weitzman & Rizzo, 1974). The major purpose of the materials, to provide information and skills in a specific subject area, is often supplemented by "latent content." The latter provides ethical prescriptions, a vision of "the good life," and motivations and incentives to attain it, all of which heavily influence the values, attitudes, and aspirations of the learner. Racist or sexist attitudes can easily be reinforced inadvertently by inaccurate or biased instructional materials. Career education materials, in particular, in dealing with the world of work, values and attitudes, and human relationships, must be carefully scrutinized for racist or sexist implications which may have subtle but lasting effects on students.

Racism

Public education to date is regarded as having been generally ineffective in

meeting the needs of children from minority groups (Meyen, 1978). Special education has often been guilty of utilizing discriminatory practices in placing minority students in their programs, even though often unknowingly. Mercer (1973) reported that the rate of placement of black children in special classes was three times higher than would be expected in light of the proportion of blacks in the population. This situation was due, in part, to the bias of assessment instruments, and often to the feeling on the part of special educators that they could offer a more appropriate instructional program in a special class setting. Meyen (1978) points out, in defense of special education, that the discriminatory practices criticized in the literature generally focus on practices prevalent through the 1960s, which surfaced in the 1970s, and were dealt with through state and federal legislation. It is important to remember, however, that racism in education, and society in general, cannot be legislated away. It is obvious that racism still exists within our society, a situation which makes it incumbent on the educational sector to guard against reinforcement of racist attitudes within the classroom.

The fact that racism does exist in current educational materials is substantiated by several authors. Guttentag & Bray (1976) found that white elementary school students tend to maintain rigidly stereotyped views of lower status groups (i.e., minorities). Weitzman and Rizzo (1974), in analyzing the most widely used textbooks across the nation in the areas of science, math, reading, spelling, and social studies, found that 81% of the illustrations were of white persons, while only 8% pictured blacks. The remaining illustrations were a combination of American Indians, Asians, Chicanos, or Latins.

The career education concept has been a source of controversy among educators of minority groups since its inception. The major point of concern has been the potential misuse of career education as an exclusionary device to "track" minority students away from high status positions toward lower level technical and blue collar jobs, thereby reinforcing the already unequal distribution of income and status in our society (EPIE, 1975).

The Educational Products Information Exchange, as a component of the survey of career education materials, subcontracted with the Council on Interracial Books for Children (CIBC) to examine a randomly selected subsample of 100 materials for racism (1975). The materials examined included books and other printed material, films, filmstrips, cassettes, and records. They dealt with topics including specific occupations, career guidance, teacher and counselor guidance, work ethics, and the changing world of work.

> Within these general categories, the materials ran the full spectrum. Some were overtly racist in that they were devoid of any minority representation, some represented minority groups in very limited and traditional ways, some contained quasi-integrated representatives, and some were devoted solely to minorities. (EPIE, Vol. 1, 1975, p. 30)

Included in the EPIE report was a CIBC developed instrument entitled

"Checklist for Reviewing Career Education Materials for Racist Content" to facilitate systematic review of materials. The instrument is made up of two series of questions designed to aid the reviewer in conducting both visual and content analyses. Reviewer responses to checklist items are categorized into five groups: (1) Virtually Always, (2) Usually, (3) Often, (4) Occasionally, and (5) Virtually Never. The findings of the material review from a visual analysis are summarized in the following section.

1. While white workers are depicted with a variety of facial expressions and appear quite serious about their work, black workers are almost always grinning, no matter how serious their tasks.
2. Blacks are often "white washed", meaning that they have the appearance of white persons, both physically and in style of dress.
3. Minorities pictured often illustrate either "tokenism" (one minority included with a group of white workers, often working alone), or "separatism" (a group of minority workers with no whites present).
4. Minority workers were often shown doing useful tasks, but in all but three of the 100 materials reviewed, whites were shown in the supervisory roles.
5. There were some materials which pictured minorities looking confused or indecisive while whites appeared self-confident and in control.
6. There were almost no materials which featured minority workers in high level positions, while several materials depicted minority workers as secondary characters, often performing unskilled work.
7. The clearest indicator of racism in career education materials was in the area of service. White workers "served" minorities only in professional capacities (i.e., doctor, lawyer), while minorities served whites in food and hospitality settings.
8. Many minority people were shown performing services in "lily-white" communities, reinforcing the theme that minority employment is designed to serve whites.

The interpretation and major findings from the content analysis by CIBC included the following:

1. There was a lack of factual information about the realities of the labor market which are particularly important for minority students, such as the roles and responsibilities of government regulatory agencies, the hierarchy of decision-making and power within agencies, and the social benefits and privileges accrued by those at different levels within the hierarchy.

2. "Ability to speak clearly" was heavily emphasized, suggesting that accents were a disadvantage. Reviewers felt that "speaking clearly" was equated to "speaking whitely" since 90% of audio materials utilized white narrators.
3. Only two of 100 materials dealt with the topic of potential racial discrimination, and neither offered suggestions for dealing with it. Employer responsibility to prevent discrimination was not discussed.
4. Testing was often suggested as a means to assist students in occupational choice, but there was no mention of possible cultural discrimination and its effects on minority students.
5. Only 11% of workers in materials examined were from minority groups, with 53% of that number depicted in low-paying jobs.

Sexism

> If you're a girl, you'd probably rather handle curlers than tools. (EPIE, Vol. 1, 1975, p. 55)

The statement above, a common example of sex role stereotyping, was found in a current career education instructional material supposedly free from sexist bias. Even more disturbing is the fact that statements of this kind are far from unusual in career education materials today. Sex labeling of occupations is a matter of tradition and history, still prevalent in spite of the current freedom from physiological limitations brought about by the rise in technology (Grams and Waetjen, 1975). Evidence indicates, however, that it is not the nature or requirements of the task itself that dictates assignment to one sex or the other, but rather the cultural designation of the task that determines who will undertake it. That occupations are sex-typed, meaning that the norm of participation for an occupational category becomes associated with a particular sex, is basic knowledge as early as elementary school for most students (Mishler, 1975).

The process of occupational sex-typing is as damaging to males as to females in that males learn very early that they must achieve, must have courage, be brave and dependable, support the weak (women), be clever and skillful, and perhaps die in battle — all concepts which serve to place the male under a great deal of stress (Grams & Waetjen, 1975). Research indicates that mental health for males is perceived in terms of being aggressive, independent, competitive, ambitious, unemotional, etc. Females, on the other hand, are perceived as healthy when exhibiting such traits as talkative, gentle, quiet, and needing security (Rosenkrantz, Vogel, Broverman, & Broverman, 1968). Very young children demonstrate fairly rigid sex-stereotypical attitudes, although they do not sex-stereotype themselves or same sex peers as much as opposite sex peers. Girls at all ages are more open to attitude change in this area than are boys.

Boys at earlier ages than might be expected exhibit fear of competition brought about by the upward mobility of women in the occupational arena — a finding which points out once again the importance of stressing androgynous roles for both males and females (Guttentag & Bray, 1976).

Given the prevalence of sexism in the general society, it is not surprising that sexism permeates the educational system. In most American schools, the men are the administrators while the women are the subordinates (teachers and clerical workers). While there are male teachers, the majority of them rise to the rank of administrator, especially in the elementary schools (Bart, 1974). The educational system reinforces sex role stereotypes by providing differentiated activities and classes for males and females, although much of this differentiation has now been legislated away, at least on paper. Lee & Gropper (1974) identified the concept of the "Double Standard of Mental Health" (DSMH), of which sexism is a manifestation. The authors maintain that the DSMH has permeated our educational system through the adoption of a Genetic Deficit Model, in which lower expectations are held for women than for men. They report that "To the degree that the DSMH is present, formal career education might be expected to further reinforce career choices based on sex roles rather than on individual competencies and interests" (p. 208). The sexism inherent within the public educational system cuts across most categories of educational personnel. For instance, research into counselor attitudes points out that counselors show distinct bias against girls who show interest in "masculine" occupations. Females exhibiting nontraditional career choices are usually encouraged to participate in further counseling to "reevaluate their choices". Unfortunately, women counselors show as much bias as do their male counterparts (Grams & Waetjen, 1975; Mishler, 1974).

Special education has also demonstrated its own share of sexism in the training of handicapped individuals. Cegelka (1976) carried out an analysis of followup studies of former special education students. She concludes that secondary programs have succeeded in enhancing the employability of male clients to some degree, but little has been done to alter the adult adjustment patterns of females. Most professionals will agree that the focus of vocational preparation training efforts for the mentally retarded has always been on males. In summarizing the findings of the followup studies, Cegelka points out that mentally retarded males and normal females earned approximately 62% of the amount earned by normal males, indicating that being a female of average ability is an economic disability commensurate to being a mentally retarded male. Being mentally retarded *and* female, however, entails possessing a "double disability". Persons in this category earned only 35% of the amount earned by the above group. Cegelka concludes that those in the field of special education

> ...expect lower levels of adjustment from females. Girls are expected to be more independent, as reflected by the differential criteria for success. In order to be counted as successful, a male generally must be fully employed and economically self-sufficient or married. The emphasis on training girls primarily for marriage

> has serious implications. Given national divorce rate estimations of from 25 to 40%, it appears that girls should be trained for more stable employment futures. Further, it is probable that a large number of married females will have to contribute to the family income through employment outside the home. Special education programs have been negligent in preparing girls for such employment other than in low paying jobs. (p. 326)

Among the recommendations for change, the author points out that special education personnel must take on the responsiblity for examining the curricula (instructional units and materials, course offerings, and general program emphases) for sex biases. Although federal equal rights legislation and the women's liberation movement have improved the possibilities for obtaining equality for handicapped females, it will continue to require an extra measure of diligence on the part of special educators to ensure quality and equality of training opportunities.

Serious studies of instructional material content for sex bias are not a recent phenomenon. Such a survey carried out in 1946 found that materials carried very clear messages that girls were passive beings while boys were active. Girls had greater affiliation needs while boys were engaged in problem solving. A similar study in 1954 called attention to sexist and racist stereotypes in all-white "Textbook Town" (Grams & Waetjen, 1975). U'Ren (1971) reviewed 30 texts used in primary grades and found that in 75% of the stories, the main characters were male. In only 4% of stories was the main character a female, and even then was portrayed as an assistant or subordinate to a man. It is sad to note that the majority of these texts were written by women. Weitzman and Rizzo (1974) in a wide-scale analysis of widely used textbooks at all levels found that 69% of all textbook illustrations depicted males, with the proportion of males increasing with grade level of the materials. An analysis of children's books winning or achieving runner-up status for the coveted Caldecott Award during the early seventies, resulted in only 23 of 261 illustrations depicting females. Even animals pictured in the books showed a distribution of 95 male animals to one female. In two of the 18 prizewinning books which featured a female character, one had a boy's name while the other was a foreign princess. Neither had a job or profession (Weitzman, Eifler, Hokoda, & Ross, 1971). A popular career education series featuring the characters from the Popeye comic strip was analyzed and found to depict 75% male workers against 25% female workers (Heshusius-Gilsdorf & Gilsdorf, 1975). Trecker (1971) studied 13 popular secondary level history texts and concluded that women were almost always presented as passive, incapable of sustained organization or work, satisfied with their role in society, and well supplied with material blessings. Even the Dictionary of Occupational Titles, a publication of the U.S. Department of Labor appears to be highly sex-biased. Ratings in relationship to People, Data, and Things were examined by a University of Wisconsin team and reported by Howe (1977). Ratings range from a high of "101" which represents the abilities required by a surgeon, to a low of "878".

Among those occupational categories assigned a rating of "878" were foster mother, child care attendant, nursery school teacher, horse pusher, parking lot attendant, poultry offal man, and — homemaker.

EPIE (1975) subcontracted with Women on Words and Images (WOWI) in Princeton, New Jersey to document the extent to which sex role stereotyping was present in a randomly selected subsample of 80 career education instructional materials. The analysis was begun by counting the number of occupations assigned to males and females, or both. Analysis procedures included illustrations, written content, language used to indicate gender, and the sex of narrators in audio materials. In elementary level materials, the total number of occupations mentioned was 1,160, with 741 assigned to males, 332 to females, and 87 to both. At the secondary level, 1,121 occupations were discussed with 730 assigned to males, 322 to females, and 69 to both. The results indicate a five-to-two ratio of male-to-female occupations at both levels. Each male and female in print illustrations and filmstrip frames were then counted. Of 9,456 illustrations counted, 60% were of white males, 28% of white females, 8% of non-white males, and 4% of non-white females — a two-to-one ratio of males to females. Thirty-seven films, records, or cassettes were narrated by males, while one material featured a female narrator. Narration was shared by both males and females in three materials.

Four basic categories of materials were observed. The first category was exemplified by *materials with stereotyped occupations, dominated by males.* The reviewers felt that the language was sexist, the role models gave males more choices than females, and in general, the traditional framework was maintained.

> *Example:*
> A gigantic kit, containing 340 work briefs describing on-the-job work situations, uses male role models for 251 occupations and female role models for 72 occupations, and shows 17 occupations for both sexes. All the occupations are stereotyped: A woman is an insurance clerk and a man is an insurance agent; a woman is a dental hygenist and a man is a dentist. (p. 59)

The second category, *materials aimed at one sex only,* depicts role models for males only or for females only, with all occupations stereotyped.

> *Example:*
>
> A career exploration book directed only to males deals with careers in the law enforcement and criminal justice field: "policeman", detective, secret service agent, and so on. The only women shown are a court reporter and a criminal. The only mention of women is in an explanation of the YY chromosome that may explain criminal behavior in some men. (p. 60)

Materials with tokenism make up the third category, and include those materials which do present a small proportion of men or women in nonstereotyped occupations, but treat them in a superficial way.

> *Example:*
> A book which shows policemen actively helping people, directing traffic, and guarding a politician, among other activities, also shows a solitary example of a woman police officer. In a discussion of how police dress, men are shown in motorcycle outfits and in raingear, while the "token" woman is shown standing and smiling in her skirt and blouse uniform...she is not identified and no description of what she does is included. (p. 60)

The last category includes *materials which attempt fairness.* These materials display a greater proportion of females in work-role models, with generally nonsexist language, but do not always succeed in communicating that real options are open for both sexes.

> *Example:*
> Another material...discusses job training in schools. The language is nonsexist and makes no written reference to males or females while outlining 14 different jobs, ranging from electronics to secretarial. Inconsistently, all three illustrations are of males. (p. 61)

In addition to the categories of materials outlined above, WOW! found three basic patterns of sex bias present within career education materials. One of the primary types of bias was in relationship to *family responsibility,* and inferred that marriage and family problems are female responsiblities.

> *Example:*
> Intensive schooling is provided by the airlines for newly hired flight service personnel, not only because of general airline expansion, but also because of the relatively short time of the girl's [sic] employment. The average length of employment for domestic airlines is about eighteen months, and for international airlines, thirty months. Most stewardesses resign upon getting married. Previously this was a requirement on most airlines. Recent laws have changed this, however, and girls may not be forced to resign after marriage. In general, however, continued flying beyond a few years is not usually conducive to a happy married life. (p. 62)

A second pattern of bias was found in the area of *grooming,* typically portrayed as an important component in preparing women for the world of work.

Example:

Good posture, attractive glasses, manicured hands, smooth arms and legs, proper girdles to firm buttocks — all enhance the physical qualities we have inherited. The secretary who does not make the most of her physical attributes is not doing herself justice. (p 61-62)

WOWI goes on to point out that analogous treatment for males might entail reminding men to be sure to avoid food-stained ties, rumpled suits, missing buttons, or open fly zippers.

The third pattern of bias involved the use of sexist *language,* referring primarily to the general usage of the generic "he." Eighty-four percent of narrative materials included in the study used the word "he" or "man" to mean "people." The generic "she" was created, however, when discussing secretaries, nurses, beauticians, etc. Many materials were found to be inconsistent in language usage in spite of obvious attempts to eliminate sexism.

Example:

The job of central office foreman, like all telephone jobs, could be held by a man or a woman...He works with a skilled group of people. (p.63)

CONCLUSION

It is important that teachers in all areas of education be aware of appropriate procedures in selecting instructional materials for student use. In the area of career education, particularly as it relates to the vocational aspects of career preparation, the issues of racism and sexism take on critical importance. These issues may, contrary to first impression, be especially critical when dealing with handicapped students who are already stigmatized by their disability upon entering the job market. It becomes vital, then, that educational personnel be made aware of the issues of racism and sexism, and be exposed to measures for eliminating such biases from materials if possible, or combatting their effects if present in the materials.

The first step in the teacher awareness process, not unlike the career education process itself, is to create awareness of the problem. There are many resources available which substantiate the problem, the EPIE (1975) survey dealing specifically with career education materials. Reading studies and statistics, however, is often not as effective as conducting one's own analyses of materials, perhaps those actually in use in one's own school or classroom (the exploration stage). This type of activitiy is most beneficial after learning of the potential types of bias possible in materials, following guidelines such as those outlined in the *Career Education S*E*T* (EPIE, 1975).

Following the awareness and exploration stages, prospective or practicing teachers should be guided into the action stage, or begin to develop techniques

for dealing with bias as it exists in career education materials. This is primarily a matter of recognizing existing instances of bias and utilizing them as teaching tools, or supplementing content which has been neglected by the materials.

The Council for Interracial Books for Children offers the following axioms for dealing with racist bias in materials:

1. Good use can be made of bad materials by using racist connotations to stimulate discussion on related topics.
2. Teachers, particularly, have a responsibility to help students develop a greater awareness of the problem of discrimination in employment. This may include, in addition to the typical career education guest speakers, classroom visits by affirmative action officers or minority persons working in the area of job discrimination.
3. Students engaged in researching career opportunities should be encouraged to look into the historical involvement of minorities in particular occupations.
4. Teachers should be on the lookout for "dead end" jobs presented in career education materials and not encourage training for jobs which may not exist in the future.
5. Schools should be actively involved in examining current issues and countering undemocratic practices in and outside of the school environment.

Women on Words and Images (EPIE, 1975) offers specific advice to teachers and counselors in dealing with career-related sex role stereotyping. Since commercial publication of instructional materials is an expensive and time consuming process, it is unrealistic to believe that teachers will not have to deal with sex biased materials for some time to come. The solution is first, to be aware of the bias and second, to counteract it if possible. At the same time, teachers must be alert to the potential for their own actions reinforcing sex bias in students if they do not guard against it (e.g., girls clean the blackboards, boys run the projector). The reader may be interested in a checklist developed by WOWI for detecting basic sexist practices within the school setting.

General suggestions to teachers may include careful selection of speakers and field trips to ensure adequate representation of both men and women in nontraditional occupations as well as minority workers at all occupation levels. Classroom activities can be developed around identifying sexist or racist biases in television, movies, books, magazines, etc. There are excellent materials and/or activities available which help students explore their own values and attitudes toward these issues. "Reverse role playing" may help students gain insight into the "other side of the fence." Teachers may also be encouraged to develop supplementary instructional materials or activities to "correct" bias in available materials. The concerned educator, once made aware of the issues, will undoubtedly create a diverse array of methods to attack the problem.

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THE ROLE OF GUIDANCE IN CAREER EDUCATION FOR HANDICAPPED STUDENTS

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Four major areas on the role of guidance in career education will be discussed in this chapter: (1) An Introduction to Career Education and Guidance, (2) Major Concepts in Career Education and their Implications for Guidance Counselors, (3) Specific Guidance Services and Functions Relating to Career Education, and (4) Summary and Recommendations.

An Introduction to Career Education and Guidance

Career education is an educational movement born of uncertain parentage, having neither the benefit of teacher education nor counselor education as its midwife. Despite this slow beginning, career education has continually gained momentum. It is stronger today than at any time in its brief history. Yet if this growth is to continue, it is now imperative for guidance counselors to involve themselves in this movement to a greater extent.

Hoyt (Budke, Bettis, & Beasley, 1972) defined career education as:

> ...the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful and satisfying to each individual. (p.3)

Guidance may be broadly defined (Mortensen & Schmuller, 1976) as that part of the educational program that helps provide, as needed, the opportunities and specialized staff services so that all students can "develop to the fullest of their particular abilities and capacities in terms of democratic concepts."

When one considers the above definition of career education and guidance it becomes apparent that guidance personnel cannot achieve their goals for all students without incorporating components of career education. Clearly, guidance personnel are in key positions to provide the majority of decisions about the nature of career education.

Erpenback (1972) goes so far as to suggest that career education cannot succeed without quality counseling and guidance programs. Consciously or unconsciously, guidance personnel in the schools will have the greatest impact on the role of career education. How this role impacts on the handicapped is a primary concern of this chapter.

Successful implementation of career education will largely depend upon

guidance workers' attitudes and feelings toward themselves and others, and their perceptions of technological culture (Bernard & Fullmer, 1977). If views of self, human nature, and technological culture are both positive and important, then the role of teacher and counselor education becomes more challenging as the possibilities for working with students become more exciting. Preservice and inservice programs on the role of guidance in career education could be dramatically expanded and revised, both to train guidance counselors in the many facets of career education, and to enable them to encourage teachers to be facilitators of career education with all their students, particularly with the handicapped.

Currently, the limited role of guidance counselors is reflected in the criticisms reported by the National Advisory Council on Vocational Education (Sixth Report, 1972). Questions mentioned in the Sixth Report continue to need to be looked at and researched: Are guidance counselors more competent in guiding persons towards college attendance than towards other types of training and career opportunities? Are job placement and followup services not routinely provided as an important part of counseling and guidance programs? Is it still true that most counselors know very little about the world of work outside of education? Are counseling and guidance services being rejected by the hard core disadvantaged as irrelevant and ineffective? Is it still true that over sixty (60) per cent of high school juniors in this country need, but are not getting, more and improved career guidance while in high school (Prediger, Roth, & Noeth, 1973)? Is it true that handicapped students are not receiving adequate career guidance and counseling services from school counselors? If the answers to any of these questions are in the affirmative, the necessity of incorporating guidance in career education becomes clearer, and specific steps must be taken to correct the past performance.

Before presenting some of the major concepts of career education with some specific recommendations for educators, it is necessary to stress some of the positive potentials of career education. Career education can be used to strengthen the status of guidance and counseling. It can enhance the effectiveness with which counselors function, and it can increase the personal satisfactions for guidance counselors throughout the country. These potentials can be achieved by scrutinizing the present perspective of career education and expanding it so that it reflects more of a developmental guidance point of view.

Major Concepts in Career Education and Their Implications for Guidance Counselors

The following major concepts (Hoyt, [illegible] Mackin, & Mangum, 1972) are presented to provide a rationale for career education. Inherent in these concepts are guidelines that provide a foundation for the integration of specific guidance services and career education.

(1) *Career education is an effort to diminish the separateness between academic and vocational education.* The criticism has often been made, and

rightfully so, that guidance counselors spend the majority of their time and effort working with college bound students. This career education concept allows the counselor to provide equal amounts of time, energy, and services to work bound students. By spending equal time with work bound students the guidance counselor will demonstrate that career education is for all students.

(2) *Career education is an area of concern which has some operational implications for every educational level or grade, from kindergarten through adult life.* This concept allows all school guidance counselors, elementary through post-secondary, to focus on the developmental aspects of career education. The elementary school guidance counselor, increasing in numbers, is trained to assist in the development of the elementary school child's awareness of self (affective components), work, leisure and resources — four domains that will be developed later in this section. The junior high counselor facilitates exploration of these domains, while the secondary or post-secondary counselor involves students in decision-making experiences within these domains. Thus, the concept that career education has implications for every educational level, if fully developed, allows the guidance counselors of all students — kindergarten through adult — to capitalize on the developmental aspects of students throughout their educational program(s). This concept also has direct implications for both teacher and counselor education programs.

(3) *Career education is a process that helps every person exiting from the formal education structure towards employable skills of some type.* This concept asks guidance counselors and educators to take a different look at defining employable skills. A new definition of these skills will ask us to be more responsible in linking the academic classroom to the "real" world. To begin to meet this challenge, the guidance counselor must be more involved in the enrollment process, the assessment of students' interests, aptitudes and abilities, the development of individualized education programs (IEPs) and in assistance to the student in career decision-making processes. Only through offering comprehensive guidance services of this nature, and by revising the content in the academic classroom, can we then enable the student to obtain and utilize employable skills. Teaching students how to sell their job skills on today's labor market is equally important. Thus, for example, guidance counselors and teachers can instruct students in job interviewing skills and in resume and letter writing skills.

This concept also provides a rationale for guidance counselors to become directly involved with classroom teachers and their work with students.

(4) *Career education is a direct response to the importance of helping individual students make choices.* This phase of career education most appropriately fits in secondary and post-secondary training institutions. The concept stresses the importance of teaching career decision-making skills to students. Handicapped students may have real deficits in this area due to lack of information or lack of opportunity to make any of their own decisions.

(5) *Career education is a way of increasing the relevance and meaningfulness of education for greater numbers of students.* The implementation of this concept demands the cooperation of the guidance counselor and the classroom

teacher. The guidance counselor can enable classroom teachers to share their knowledge of personal and social adjustment and the world of work, thus assisting them to find ways to integrate his/her classroom with the "real" world. The guidance counselor can also help teachers learn about available, external career education resources, and suggest ways to bring these resources into the classroom.

(6) *Career education is an attempt to make education an open system in that school leavers, school dropouts, and adults can reaffiliate with the school when their personal circumstances or job requirements make this possible.* At present, it is much easier for students to exit from our schools than it is for them to re-enter. This concept of career education requires the total cooperation of the entire school staff. The guidance counselor's role in this concept demands that counseling take place outside the traditional school day and further implies that counseling may take place other than in the counselor's office. This concept, like the other concepts of career education, provides a rationale for guidance counselors to become more than ancillary services — ancillary services meaning "nice, but not needed" (Gysbers, 1976).

(7) *Career education is a structure whose desired outcomes necessitates the cooperation among all elements of education, as well as among the school, the business world, and the community.* The guidance counselor, in working with this concept of career education, should have a direct responsibility to become a liaison to, and organizer of, cooperative career education efforts among the school, the business world, and the community. This concept affords the schools an excellent vehicle for developing a comprehensive approach to the career education needs of all its students. Additionally, this concept provides an opportunity for an excellent public relations program for schools vis-a-vis the business world and the community. It definitely enhances the image of handicapped persons in the community when positive interactions can be achieved through school programs.

(8) *Career education is an enterprise requiring new technologies and materials in education.* The guidance activities that have developed out of this specific career education concept during the past five years have included (1) computerized career guidance systems, (2) group career counseling activities (Nelson, 1975; Garfield & Nelson, 1975), (3) new and improved interest inventories, (4) comprehensive career resource and information centers (Reardon & Minor, 1975), (5) focus on one-to-one career counseling techniques, and (6) changes and modifications in counselor education programs providing more realistic training procedures and programs for individuals studying to become guidance counselors.

(9) *Career education is a form of education for all students.* Guidance and counseling programs were originally designed to work with, and provide services for, all students. Throughout the years, because of technical and sociological changes, guidance programs have tended to drift away from working effectively with all students. The easiest way to respond to this concept of career education is to challenge the guidance counselor to offer appropriate guidance services to *all* students. The guidance counselor can no

longer continue to focus on the able-bodied college bound student, but must provide comprehensive services to all students from the multitude of sub-populations within the school system. Specific sub-populations among whom renewed career guidance emphases need to be made are non-college bound youth, work-bound youth, and handicapped or special needs students.

(10) *Career education provides the opportunity to reduce sex role stereotyping in choice of careers.* The considered appropriateness of a specific career for either men or women has too often influenced one's career choice. This concept of career education focuses on an individual's choice of careers based on interests, aptitudes and abilities and not on gender. The Women's Liberation Movement (Bernard & Fullmer, 1977) provides "guidance workers an excellent chance — and some help for examining their own perceptual biases." Mednick & Rangri (1972) emphasize that our thinking about careers, homemaking, achievement, and motivation are among the topics that must be examined for stereotyped thinking. Cegelka (1976) has focused on this as a particularly prevalent practice with female handicapped individuals.

The preceding concepts provide a structure that illustrates the compatability of guidance functions and career education. Although this list is far from inclusive, it does create an awareness of the possibilities that exist for today's counselors and teachers. Conceptualizing career education as a developmental, cyclical program, every counselor and teacher can contribute to implementing a high quality career education program.

The literature concurs that career education should be developed in at least three phases: Phase 1 is the *Awareness* phase for kindergarten through grade 6, Phase 2 is the *Exploration* phase suggested for grades 7 through 9, and Phase 3 is the *Decision-Making/Preparation* phase for 10th grade through adult life. The four domains contained in career education (Kansas State Department of Education, 1973) lend themselves to this developmental approach. The domain of *Self* includes how one thinks about oneself, one's attitudes, feelings, and perceptions. Self is the individual's own frame of reference from which that individual meets the world and perceives how he or she is viewed by others. An understanding of the domain of the *World of Work* enables the student to consider activities that will be both productive for society and potentially satisfying in later working years. The domain of *Leisure* in career education stresses that individuals may receive some self-satisfaction from work roles, while other individual needs may be satisfied through leisure time activities. The last domain, that of *Resources,* includes environmental factors (external to the school) which influence one's career choice(s). Examples are one's community, business and governmental agencies, and influential persons who may assist in making a career choice. These domains are compatible with the model presented earlier in this book for career education for the handicapped.

Organizing a career education program around these *four domains* and developing them in the *three-phase* approach is one way to coordinate guidance services and classroom content for entire school district career education programs. The elementary counselors and teachers would be responsible

for helping students become aware of themselves, the world of work, leisure, and resources. The junior high counselor and teacher would be responsible for developing activities that allow students to explore these four domains; secondary and post-secondary counselors and teachers would engage students in decision-making and preparation experiences. Examples of the latter are the familiar and often successful work-study programs that allow handicapped students to choose specific job site locations to fulfill their work related requirements. It is necessary to stress that these three phases are cyclical. Secondary and post-secondary personnel may need to help students repeat the awareness and exploration phases.

Specific Guidance Services Relating to Career Education

Several questions come to mind in considering the guidance services necessary for a comprehensive career education program: (1) Have guidance counselors strayed too far from the developmental point of view — that is, guidance for everyone? (2) Are counselor education programs adequately preparing future counselors to deliver guidance services to all their prospective clients? and (3) If we hypothesize that the answer to these questions is no, then why has it become necessary to take a look at the role of guidance in career education? The answer is that guidance counselors not only have a significant role in a career education program, but should also be responsible to make the basic concepts of career education easier to implement.

Career education provides an opportunity for guidance counselors, teachers, teacher educators, and counselor educators to work together to meet the challenge of responding to the assessed and expressed needs of today's students.

Specific guidance services related to career education include:

(1) *Career Information Services and Resources.* Guidance personnel should provide career information services and resources to students, faculty and parents. Complete and relevant career information resources need to be available in printed materials, audio-visual materials and "people" resources (Reardon & Minor, 1975).

Along with printed career information resources, computerized career information systems should be considered. In many school districts, a complete, accurate, and easily updated computerized career information resource is available for a lower cost than employing an additional counselor. The school districts that have used this sytem have received a positive reaction from students. Comments like, "for the first time I went to a counselor (the computer) and received a direct response to a career information question" are commonplace.

The coordination of "people" resources is an important role for the guidance counselor. The counselor's expertise in facilitating questions that enable the student to explore different career choices is a necessary skill for a

resource coordinator. This person can match student's expressed interests with workers in specific occupational roles. Allowing students to spend time this way has proven to be one of the most valuable methods for involving the student in the world of work domain.

(2) *Career Assessment.* This guidance service continues to have a major impact on students' career choice(s). Sitlington's chapter in this book points out the many approaches available. Feedback from the assessment of interests, aptitudes, and abilities is especially important for handicapped students when contemplating career alternatives. Both counselors and teachers need to explore ways to improve this feedback process for the student and parents. Standardized data collected from assessment measures must not only be made available to students and parents, it must also be communicated to them meaningfully. Perhaps this is one way to get teachers and counselors more involved in the assessment process.

It is important to note that although good assessment instruments are currently available, there is still a need for career assessment developers to work on instruments that are free of culture and sex bias (Dolliver & Nelson, 1975) and are nondiscriminatory in every possible aspect.

(3) *Group Approaches to Career Counseling.* One of the growing movements in guidance and counseling is finding ways to work with groups of students in regard to career counseling. These activities (Holland, 1974) capitalize on the techniques of the encounter movement and new therapies. Guidance counselors are aware that counselor-student ratios are too high. Group approaches have been developed for working with career concerns of students. These group approaches provide activities to assist students in becoming aware of self, the world of work, leisure, and resources (Nelson, 1975).

The research on group approaches to career counseling (Nelson, 1975; Garfield & Nelson, 1973; Magoon, 1969; Pappas, Fuhriman, Packard, Warshaw, Stoddard, & Carney 1972) indicates that aside from allowing counselors to work with greater numbers of students, group career approaches both enhance the individual student's self-knowledge and increase information seeking behaviors relative to the career decision-making process. Guidance counselors may find it difficult to have access to handicapped students because of scheduling problems, but they can at least be involved in planning and monitoring group efforts.

(4) *Job Interviewing Skills, Resume Writing and Placement.* Much of the literature on career education discusses the relationship between career choices and the subsequent satisfaction with work roles. There is a section of literature, however, that perhaps has even greater implications for guidance counselors: the student's need and desire to learn job interviewing skills, resume writing skills, and assistance in educational and job placement.

These services have always been expected from guidance counselors, but due to their other responsibilities within the school system they have often been neglected. Adequate guidance services, within comprehensive career education programs, must provide individual students with these most important skills

and with opportunities for effective educational and job placement. While these skills may be a part of the handicapped student's curriculum, the counselor's knowledge and expertise in this area should be used.

(5) *One-to-one Career Counseling.* If career education is to benefit from guidance counselors, the guidance counselor must not lose sight of the importance of one-to-one counseling. Too often career counseling has little appeal for the guidance counselor; interest and time are invested in therapeutic counseling areas.

Students must have the opportunity to explore future career and educational decisions with a guidance counselor. Guidance counselors need to become aware of and sensitive to the positive values of one-to-one counseling with the handicapped who, because of their unique needs, require some individual guidance and counseling services that are not always appropriate in group sessions.

(6) *Guidance Services for Differently Advantaged Students.* These guidance services address themselves to the differently advantaged students who have too often been ignored in the past. Guidance counselors must develop programs that will effectively serve the culturally different, non-college bound and special students. Career guidance services for differently advantaged students will require the involvement of the total school staff — especially guidance personnel, special education personnel, and classroom teachers.

Guidance counselors will need the most assistance from other educators within the school system to meet the career education needs of the differently advantaged student. A career education program can provide an opportunity for school personnel to coordinate their services so that all students can receive career guidance services.

Summary

The ten major concepts in career education and their implications for guidance counselors, discussed earlier in this chapter, provide the framework for the six specific guidance services relating to career education. Guidance counselors, through the concept of career education, have both a challenge and an opportunity to provide relevant services for handicapped as well as non-handicapped students.

Students, through the cooperative efforts of educators, including counselors, can and will benefit from the career education concepts, activities, and programs of today. Career education provides excellent opportunities for growth — both for the student and the professional educator.

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CAREER EDUCATION AND PL 94-142: SOME VIEWS

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The primary justification for special education is based on the unique instructional needs of some children and youth. Historically, special educators have advocated that the most effective way to teach handicapped students is to design programs that focus on each student's unique needs and abilities — that is, to individualize instructional planning. As recently as five years ago, individualized planning for the handicapped involved manipulating instructional materials, methods, and settings according to the needs of the handicapped learners. But the process was not generally applied, nor was there much uniformity in the planning techniques employed. Since the passage of PL 94-142 however, educators have been forced to think of individualized planning in the context of the Individualized Education Program (IEP).

The IEP has had a positive influence on the field of special education. It has given visibility to the planning process and caused administrators to attend to instructional planning for handicapped students. At the same time, however, it has been somewhat restrictive for some areas of the curriculum. The implications of the IEP for career education, for example, are different than for the traditional academic subject areas. This becomes apparent as one examines the emphasis of the IEP as specified in PL 94-142. This emphasis is focused on developing a plan of instruction for a student, i.e., objectives to be attempted and resources to be utilized. IEP developers tend to first concern themselves with those curriculum areas which have historically been the target for individualized instruction, e.g., math and reading. The basic academic areas have a long history of experimentation with individualized planning. The methods of individualization in the skill subjects for handicapped students have been reasonably well established. Career education does not share this history. It has not had a grace period to experiment in without restrictions. Therefore, it is likely that career education will not receive as much attention in IEP development as the traditional curriculum areas until it is more widely understood and accepted.

Instructional Planning and the IEP Process

Just as planning procedures vary according to instructional settings, teachers vary in their preferences for particular planning procedures and teaching methodologies. There are, however, certain general principles and planning concepts that apply to most situations. If followed, these principles enhance the opportunities for providing effective instruction appropriate to learner

needs. Within this context, instructional planning may be seen to have four basic objectives (Meyen, 1978):

1. To make use of available information on learning characteristics and instructional options in planning specific teaching activities.
2. To establish short range plans within a long range plan that can be implemented as intended, often by persons other than those doing the planning.
3. To allow for the collection of evaluation evidence that illustrates the pupil's cumulative performance.
4. To provide a base for instructional decisions regarding programs for individual pupils.

One of the primary components of PL 94-142 is the requirement that an IEP be written for each handicapped student. Although states, and cities within states, differ in the procedures and format by which this requirement is carried out, the specific requirements for the IEP are identical for all agencies. The specific requirements of the IEP include [Regulations, PL 94-142, Sec. 121.a. 346]:

a. A statement of the child's present levels of educational performance;
b. A statement of annual goals, including short term instructional objectives;
c. A statement of the specific special education and related services to be provided to the child, and the extent to which the child will be able to participate in regular educational programs;
d. The projected dates for initiation of services and the anticipated duration of the services; and
e. Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved.

A basic intent behind these requirements is to provide teachers with minimum standards for instructional planning (Meyen, 1978). While this may be adequate for most academic areas, compliance with the IEP requirements is not sufficient as an instructional planning strategy for career education. Three factors contribute to this situation:

1. Rarely does career education exist as a specific service or separate programming option. Career education programming may indeed exist in a school district (infused into the regular curriculum or even as a few separate courses), but few districts have career education as a visible programming option.

2. Career education content does not fall into a precise developmental sequence or heirarchy.
3. There is no normative reference base for comparing individuals on career education concepts and skills. Continuous instructional planning requires ongoing evaluation. This is true in any area but is particularly true in an area that responds to observed needs and skills that are performed outside the school structure. The general absence of evaluation procedures and instruments in career education makes continuous evaluation very difficult.

Instructional planning in career education is complicated by its short history as a major instructional concern for both non-handicapped and the handicapped, and by the lack of teachers' experience in individualizing career education. The above-mentioned factors combine to place the teacher wishing to teach career education content in a position of having few guidelines for planning. Typically, the teacher is totally responsible for instructional planning in career education because there are no consultative resources available. Evaluative information to assist in planning is difficult to obtain because few such instruments exist. Even if evaluative information can be obtained, there is no normative frame of reference within which to make comparisons among students, nor do measures exist for determining when a career education concept should be taught. Merely complying with the IEP requirement of PL 94-142 will not be sufficient to overcome these problems. Teachers concerned with career education for the handicapped will also have to engage in curriculum development.

The required IEP process also has implications for career education as a field. Many of these considerations appear as negatives. This will change as career education continues to be a national priority and as advocates solve the problems concerning instructional planning. IEP considerations specific to career education include the following:

1. *The IEP applies only to service priorities.* In contrast to such fields as physical therapy, occupational therapy, and even physical education, career education has a minimal history as a service priority. Career education may be overlooked as a programming choice because it is not perceived as a priority by IEP conference participants.
2. *The IEP must be agreed to by the parents or guardians.* Career education is often a low parental priority. Parents frequently want their children to concentrate on reading and other basic skills, especially in the elementary years.
3. *One of the IEP requirements is evaluation of short term instructional objectives.* Since career education has an insufficient data base, it may be overlooked or omitted for lack of accountability.

4. *Both the IEP process and the orientation of many special educators are based on a remedial model, i.e., identify deficits — intervene — measure performance.* Career education does not fit this type of model. Career education is much more developmental.
5. *The curriculum areas most frequently found in IEP's, e.g., reading, math, and writing, are those with a strong advocacy base in the schools.* Career education does not yet have a strong school advocacy base. When it does, it is typically restricted to a focus on occupational aspects of career development only. One reason for this relates to the assignment of instructional responsibility. In comparison to other curriculum areas, instructional responsibility in career education is very dispersed. In many school districts, instructional planning and evaluation in career education are left to the individual teacher. This leaves career education without a strong unified voice in IEP conferences.
6. *Because of the tremendous amount of time, paperwork, and arrangements that compliance with IEP requirements entail, IEP participants often seek to write objectives for the student in curriculum areas for which well-established curriculum already exist.* Career education can offer well-established curriculum options, but there are not many published versions of these available.

Procedural Safeguards

Among the procedural safeguards included in PL 94-142, two should be of particular interest to career educators. First, preplacement evaluation must be preceded by written consent from parents or guardians. This implies that formal testing of the student will be done after consent is obtained and before programming decisions are made. For the traditional academic subject areas, this presents few problems: accepted evaluation instruments abound. But in career education there is a general absence of evaluation procedures and instruments. This leaves career education in a somewhat nebulous position. On one hand, career education seems to be a viable choice for programming for every student. On the other hand, evaluation data must be collected to be used as the basis for programming decisions. If skills and concepts critical to career education are not evaluated (or not evaluated systematically), career education will, at best, take a secondary role in IEP programming decisions.

The second procedural safeguard of interest to career educators is nondiscriminatory testing. This increases in significance now that many career educators are advocating that career education should go beyond the emphasis on work to include emphasis on values and attitudes, human relationships, and daily living skills (e.g., Brolin, 1978; Brolin & Kokaska, 1979; Clark, 1979). For example, one objective often found in one form or another in

career education curricula is that students should be aware of the personal and societal values of work (Brolin, 1978). Inclusion of these values has been seen by some (Nash & Agne, 1973) as emphasizing a corporate work ethic. If so, will evaluating this objective be discriminatory? Obviously it will, if a value response is required. It is not necessary, however, to test someone's *awareness* of personal and societal values by requiring a value choice response.

IEP Conference

PL 94-142 sets up an IEP conference structure and membership to assume responsibility for compliance with the IEP requirements. Membership includes the following:

1. A representative of the public agency, other than the student's teacher, who is qualified to provide, or supervise the provision of, special education;
2. The student's teacher;
3. One or both of the student's parents, subject to Sec. 121a. 345 of the PL 94-142 regulations;
4. The student, where appropriate; and
5. Other individuals at the discretion of the parents or agency.

Each member has a specific role and set of responsibilities for the conference. To have an influence in the IEP conference one must influence these people. Because career education does not have a strong school advocacy base, it is likely that career education will have little influence on IEP participants unless someone adopts a strong position in favor of career education. In many cases, if not most, no one called "the career education expert" will be present in the conference. One attempt to deal with this issue is to make career education objectives a standard part of the IEP document or form (Brolin, 1979).

Implications for Career Education

The current national emphasis on instructional planning for exceptional children can be related directly to the requirements of PL 94-142. The effect of the law has been to make the IEP the principal vehicle for assuring appropriate education for handicapped students (Turnbull & Turnbull, 1978). As noted above, career education has enjoyed limited success in becoming an influencing factor in the development of IEPs. The following suggestions are offered as possible ways for career education to become an important factor in IEP conferences.

1. *Career education must influence the IEP bureaucracy.* Because IEPs must be developed in the IEP conferences, career educators must work with those involved in the decision-making process. Many may not be aware of the role career educa-

tion can play in a student's education. A first step may be to influence the classroom teacher. Teachers play a valuable role in the conference because, among other things, they are in a position to question the appropriateness of programming decisions. If career educators can influence teachers to continually ask about career education, other conference participants will begin to keep the career education needs of each child or youth in mind.

2. *Strengthen career education options for the handicapped so that the options are visible.* Curricula and programs with low visibility will only be utilized by the few who are aware of their existence.Career educators must strengthen career education options so that more teachers and administrators are aware they exist. This means acquiring access to the resources which do exist and making them available to all instructional personnel.
3. *Develop curricula based on objectives and criterion measures so that career education content receives consideration in IEP planning.* Since evaluation is a problem in career education, curricula should be based on specific behavioral objectives evaluated in a criterion-referenced format. This may relieve some of the anxiety concerning accountability in career education curricula. The criterion measurement format is also compatible with the kinds of decisions made in structuring IEP's for students.
4. *Sources of information on career education models must be made available, otherwise consideration will be limited to existing alternatives.* This is essentially a dissemination problem. PL 94-142 specifies that all promising practices must be identified. While this may be somewhat impractical, practitioners will only choose those options that are available. Making promising new alternatives known to practitioners may help career education become more visible.

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INTEGRATING CAREER EDUCATION CONCEPTS RELEVANT FOR THE HANDICAPPED INTO TEACHER AND COUNSELOR EDUCATION

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• Integrating career education concepts into instructional programs for the handicapped at all age levels, and for all types and degrees of disability, is the goal of a growing number of advocates of career education for the handicapped.

• Achieving this goal is contingent upon the ability and willingness of educators to carry out some agreed upon plan of action.

• The abilities and willingness demonstrated by educators to attempt any plan of action is the consequence of learned behaviors.

• Learned behaviors are the result of formal and informal experiences which have occurred in the personal or professional lives of educators with enough frequency or intensity to establish them as conscious, rather than random, responses.

This argument is admittedly oversimplified, but it is one which most teacher educators would accept. The premises underlying most teacher education programs are based on a similar logic, but are generally focused on some other content area or some other population. It is this common logic base, however, that proponents of career education for the handicapped must draw on when they present their case to those who must be convinced to integrate career education concepts into all instructional programs in which the handicapped might be included.

If one can accept the arguments suggested above for teachers in public and private schools, it is difficult not to see the parallel in the problem of integrating career education concepts and delivery techniques into teacher education experiences. For example:

> • Integrating career education concepts into personnel preparation programs focused on the handicapped is the goal of a growing number of advocates of career education for the handicapped.
>
> • Achievement of this goal is contingent upon the ability and willingness of teacher educators and counselor educators to carry out some plan of action to accomplish it.
>
> • The abilities and willingness demonstrated by teacher and counselor educators to attempt any plan of action is the consequence of learned behaviors.
>
> • Learned behaviors are the result of formal and informal experiences which have occurred in the personal or professional lives of teacher and counselor educators with enough frequency or intensity

to establish them as conscious, rather than random, responses.

The arguments presented have used the terms "ability and willingness" as key factors in integrating career education content into teacher and counselor training. While it is possible that one might have the "ability" but not the "willingness," or vice versa, it is likely that any reader of this book, or of Brolin & Kokaska (1979), or of Clark (1979a), will have at least some willingness and probably sufficient ability. Any barriers relating to attitudes toward career education as an integral part of public or teacher education, or to informational problems on the nature of career education, or to concerns for curriculum priorities, have probably been resolved.

Let us assume, then, that any professional who accepts the idea that public schools and personnel preparation programs should include career education programs needs one of two things: (1) a plan of action, and (2) a reward system that will initiate and maintain the behaviors required to follow through on a plan of action. Each of these will be discussed as realistically as possible.

A Plan of Action

Happily, the parallel between the goals for integrating career education content in public schools and in personnel preparation programs does not end there. There is also a comparable structure for achieving the goals. The author's position here and elsewhere (Clark, 1979a; Clark, 1979b) is that delivering career education content in any instructional program will be most effective if approached from a combination of infusion and separate programming. A career education program that can offer only one approach is not necessarily ineffectual. A combination is merely viewed as the most ideal approach.

Any career education concept or methodology for teaching career education concepts and skills can be taught in a preservice or inservice program through the direct (separate programming) or indirect (infusion) approach. The choice must be made on the basis of qualified staff, priorities in content, and the amount of time available for instruction.

Qualifications of staff. The qualifications needed for teaching career education content through infusion are minimal. Knowledge of what career education for the handicapped is, how it relates to basic academic and personal-social development, and some basic resources (assessment instruments and instructional materials) are sufficient for *any* teacher or counselor educator to infuse that information into subject areas whenever possible. On the other hand, specialized training or experience would be needed by an instructor for in-depth coverage of curriculum development in career education concepts and skills (scope and sequence), assessment of career concepts and skills, adult adjustment of the handicapped, organization and administration of prevocational programs, and cooperative programming with vocational education and vocational rehabilitation. Specialized training for this level of sophistication is available at a few teacher education programs across the nation. However, a committed, aggressive professional can acquire a suffi-

cient level of expertise to provide in-depth instruction through self-study, research, and participation in staff development institutes and/or conferences.

Content priorities. The choice about whether to teach certain career education content through infusion or separate programming is largely a matter of the needs of the target population. Certain types of content education, such as the nature of and need for career education, should be considered as appropriate for all educators. Other types of content related to career education might be appropriate only for secondary level special education personnel, special needs vocational educators, or vocational rehabilitation or vocational guidance counselors. Whether the instruction should be infused or not hinges primarily on the priority of the content as it relates to the priority of needs for the preservice or inservice population.

Time available for instruction. Once the needs of the population have been considered and staff qualifications have been determined, the final factor in choosing between infusion or separate programming is the amount of time available for instruction. In preservice settings, time can be viewed from an instructional block of time, such as an undergraduate block of 40 hours in education, or a special education major, or a master's degree program with a minimum requirement of 30 hours. In inservice instruction, time may be viewed from the number of hours or days of released time provided by the board of education. In either case, the available time must be scheduled to make the most of the opportunity to meet the needs of those who are working or preparing to work with handicapped children and youth. The time available will affect the nature of the amount of emphasis given, the amount of material covered, the amount of student involvement in acquiring and/or applying information, and the amount of individualization that should occur. Keeping in mind that the basic difference between infusion and separate programming is the focus of the instructional objectives, the time available for instruction becomes critical.

Using the above considerations as a basis for choosing between infusion and separate programming, we can consider what some specific examples of each of these approaches are.

Infusion. Assume an instructor is teaching an introductory course on exceptional children and educational programming is being discussed. Introducing career education as a current educational concept and curriculum movement is highly appropriate in the context of individualized educational programs (IEPs).

If career education is to become a more visible service alternative for handicapped students, teacher educators must influence those responsible for developing IEPs. This will not be an easy task. The time and effort required to develop and evaluate IEPs for every handicapped student sometimes forces IEP conference participants to take "the path of least resistance," i.e., to concentrate on areas for which established curricula, evaluation procedure(s), and strong advocacy bases already exist. Teacher educators must not only make these persons aware of the "what" of career education but also the "why" and especially the "how." Introducing content on the "what" and

"why" of career education via readings, videotapes, handouts, and transparencies such as those produced by Project PRICE (Brolin, 1978) and the Midwest RETOOL Consortium (see Appendix) is one way of infusing career education into the primary instructional objective related to IEPs in an introductory course.

Later on in a student's preservice sequence, the instructional objective pertaining to IEPs will reappear in a methods course when specific procedures and strategies are discussed. Incorporating content related to the "how" of career education in the context of writing IEPs is another example of infusion. Brolin's (1978) worksheet on a possible format for an IEP which structures the selection of long term goals around his life centered career competencies can be used as a handout or a transparency for presenting this type of information for acquisition or as a format for students to use for an applied case study in developing IEPs. Discussion of new career education models and practices in methods courses will also enhance the visibility of career education. Those colleges and universities with Dean's Projects could use career education objectives as examples in the instructional unit on developing IEPs.

Teacher and counselor educators can help strengthen career education options also by emphasizing the values and uses of behaviorally stated objectives and criterion referenced measurement in their assessment units in methods courses or in their separate assessment courses. Behavioral objectives and criterion referenced measurement represent effective means for career education to demonstrate accountability in instructional planning. Emphasis on these tools in preservice programs will help beginning teachers strengthen existing career education programs and design new ones.

Now, assume an instructor is presenting at a conference or inservice training session. Again, if the topics were issues, concerns, and strategies in developing IEPs, the same materials and activities used in preservice courses could be used. Inservice workshops represent a useful vehicle for demonstrating how career education experiences can be individualized to meet the needs of the handicapped. Inservice workshops also provide an opportunity to explain the concept and rationale of career education as well as how it can be individualized. Inservice workshops may allow teacher educators to influence all, or most, of the key IEP decision-makers in a district at the same time.

The degree of access one has to a large number of teachers who are not typically designated as career education teachers is important in considering the use of infusion, rather than separate programming, because separate programming in the area of career education for the handicapped is optional more frequently than not. Advocates of career education should use every opportunity to infuse career education content and skills into the instruction being given on any related topic. This also "models" the infusion technique for preservice and inservice personnel so that they can see what techniques and procedures one might use in infusing career education concepts and skills into reading, math, and social studies instruction.

The following examples of infusion should illustrate this approach further:

Example Content Objectives	Example Delivery Environments	Example Activities
Student will be able to identify learning and developmental needs of exceptional children and youth	Inservice training session on behavioral objectives and criterion referenced assessment	Have participants list the 10 most important behaviors which the exceptional children and youth they work with should have when they leave them and then 10 years later. Present Project PRICE (Brolin, 1978) competencies on a transparency and have participants match their lists with it. Discuss agreements and disagreements on list.
	Unit on curriculum development in a course on methods of teaching exceptional children and youth	Have students read and analyze various curriculum guides regarding the objectives suggested. Have students read and critique the IBAS objective banks (Wimmer & White, 1977). Present in class an example of a PRICE Competency Unit (Brolin, 1978).
Student will be able to identify various assessment approaches with exceptional children and youth	Inservice training on non-discriminatory assessment of exceptional children and youth	Transparencies on available assessment approaches, including those used in career development. Handouts on examples of discriminatory and nondiscriminatory assessment items in career development assessment.

	Course on assessment of exceptional children and youth	Readings on assessment in the area of career development.
Student will be able to teach a cognitive development concept or motor skill	Inservice training session on teaching techniques	Demonstration of teaching a motor task in daily living via task analysis. Observation of a teacher teaching a unit on values and attitudes.
	Student teaching or practicum course	Have students demonstrate skill in teaching a concept lesson in use of money. Have student demonstrate skill in teaching an assembly task.

Separate programming. Since separate programming can be provided through a single lecture, units of instruction, teaching "blocks," mini-courses, semester courses, a series or sequence of courses, or any learning activity structured to accomplish specific instructional goals, the choice of separate programming is a flexible one. It is usually the best choice when the specific needs of the learners are so great that the direct delivery option outweighs any disadvantage that might be faced. (Some disadvantages are additional cost, lengthening of instructional time, and personnel demands for specialized, in-depth instruction.) The key issue is whether or not the learners can acquire and apply the concepts and skills needed to perform specialized career education functions through an infused approach or a direct instruction approach.

Some obvious career education functions that go beyond the role of a regular classroom teacher or a resource room teacher in career education instruction for the handicapped would be: career education curriculum coordinator, career/vocational assessment specialist, career/vocational counselor, work-study coordinator, special needs vocational educator, and self-contained special class teachers. These function roles ordinarily require direct and separate programming in order to provide as much depth as is needed for adequate performance in those roles.

As one moves from a general education approach at the elementary school level to more specific educational options at the high school level, one could expect a movement from infusion as the primary delivery approach to separate programming as the primary approach. The same pattern would be expected in teacher and counselor education. As one moves through a basic teacher or counselor education program, infused content may be the most efficient and

counselor education program, infused content may be the most efficient and appropriate approach. When role specialization begins to occur, however, the direct approach is essential. Thus, it is appropriate to see such courses as the following appear in college catalogs:

Career Development for the Handicapped
Career/Vocational Assessment of the Handicapped
Implementing Prevocational Programs for the Hanicapped
Adult Adjustment of the Handicapped
Curriculum Development for Self-Contained Classes

It is important to remember that separate courses in preservice programs are not the only ways to provide direct instruction and that those in non-specialist roles can still benefit from direct separate programming through a lecture, demonstration, simulated activity, reading, or *any* learning activity where a career education concept or skill is the primary instructional objective. Consider the following:

Example Content Objectives	Example Delivery Environments	Example Activities
Student will be able to give a definition of career education	Inservice training session on career development of the handicapped; Career/vocational planning unit in course on methods of teaching exceptional children and youth	Lecture with transparency. Slide/tape presentation (Midwest RETOOL Consortium). Videotape on career education for the mildly and severely/multiply handicapped (Midwest RETOOL Consortium). Handouts of definitions.
	Course on career/vocational development of the handicapped	Lecture with transparencies showing evolvement of definitions. Videotapes, handouts, and readings.
Student will be able to discuss or write on the extent to which adult handicapped persons are coping with their current lives as a result of their schooling	Inservice training session on accountability in special education	Presentations by former special education students who are now adults in the community. Films on adult adjustment.

	Course on career/ vocational development of the handicapped	Presentations by former special education students. Readings on adult adjustment of the handicapped. Assignment of a project involving a follow-up interview by students of one of their former students or of some designated student who is available. Sharing of these in class.
Student will be able to use informal assessment instruments in career development	Inservice training sequence on career development assessment	Handouts of example informal assessment instruments. Participants administer instruments to selves or others.
	Unit of instruction on career development assessment in a course on assessment of exceptional children and youth	Handouts Students administer instruments to selves, others, or volunteer handicapped individuals. Demonstration of administration of selected instruments.
	Course on assessment of career development in handicapped	Readings Handouts Demonstration of administration of selected instruments. Self administration Practice administrations with volunteer handicapped individuals. Students develop or revise appropriate assessment instruments for various handicapped populations by age, type of handicap, and degree of disability.

From these examples, it is clear that separate programming can take various forms, depending upon the environment and needs of the group. The types of activities may be the same or similar to those used in the infusion approach. The difference lies in the nature of the instructional objectives and the expected outcomes.

CONCLUSION

The information here provides teachers and counselor educators with a plan of action to enhance their abilities to integrate career education content into preservice and inservice instruction. Acquiring new knowledge and skills tends to result in an increased willingness to initiate behaviors that relate to the knowledge or skills. However, it is an established law of learning behavior that behaviors will not be maintained unless there is enough reward in their performance to continue them. It is at this point that the logic paradigm presented at the outset becomes troublesome.

Teacher or counselor behaviors in the public schools have long been affected by reward systems outside the control of teacher educators who have the responsibility for training them. Similarly, teacher and counselor educators operate under reward systems that vary their behaviors from what might be expected of them by students, or even from what they would prefer to do themselves. Unless those professionals involved in personnel preparation for roles with the handicapped have intrinsic reinforcers operating as they try to involve themselves in the integration of career education content, it may be very difficult to do so. Anyone who has persisted this far in this document probably has the intrinsic reinforcers needed. What about those colleagues who don't? The following suggestions might be helpful for reluctant colleagues:

1. Provide them with transparencies that can be used in their courses at appropriate times.
2. Provide them with readings for students in career education concept areas that can be covered without taking class time.
3. Provide them with lists of films, filmstrips, or videotapes that are good instructional aids for certain topics appropriate for their courses.
4. Provide them with simulated problems or classroom activities that meet their instructional objectives, yet incorporate career education concepts.

These suggestions imply that the "rewards" for reluctant colleagues lie in someone taking time and effort to do what they should do for themselves. This is unfortunate, but probably realistic. It is hoped that those who take on the added responsibility of assisting colleagues will get their rewards both now (intrinsically) and in the hereafter (extrinsically).

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Career Education in Higher Education: An Infusion Model ED 143 814

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Fusing the Career Education Concept into the Fiber of the State Educational System ED 127 425

Implications of Career Education for Teachers' Preparation ED 074 206

Inservice Education: Vital to Career Education Delivery ED 073 264

Integrating Career Education into Teacher Preparation. Implementation Guide for College/University Use ED 128 656

Introducing Career Education to Teachers; A Handbook for Consultants, Workshop Leaders, and Teacher Educators ED 067 487

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Staff Development Guidelines and Procedures for Comprehensive Career Education ED 115 907

Teacher Education for the Culturally Different. Appendix C of a Final Report ED 072 207

Teacher Inservice Training for Career Education Projects in Mississippi. Final Report (June 1, 1971-June 30, 1972) ED 073 290

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The Training of Career Education Resource Teachers ED 111 925

Vocational and Career Education for the Handicapped: Training the Classroom Teacher. Project T.H.O.R. ED 140 579

APPENDIX

Materials for use as
Inservice Training Handouts or Transparencies

3 BASIC WAYS TO DELIVER CAREER EDUCATION PROGRAMMING TO THE HANDICAPPED:

1. Infusion

2. Separate programming
   - Total curriculum approach
   - Separate courses
   - Unit teaching

3. Combination of Infusion and Separate programming

• • •

Career Education is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living.

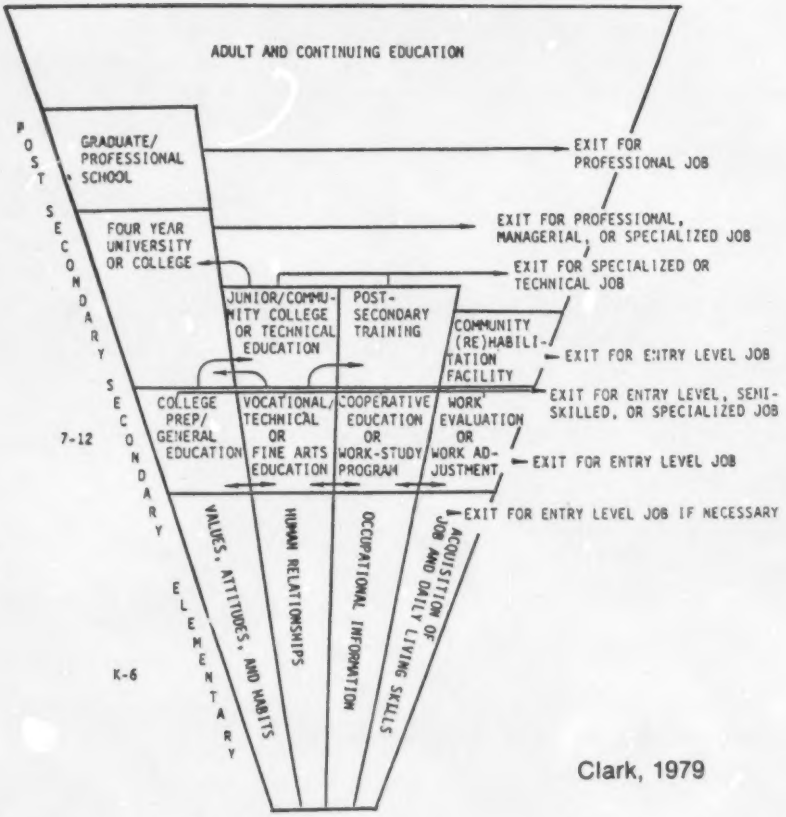
An Introduction to Career Education: A Policy Paper of the U.S. Office of Education, 1975, p. 4.

• • •

'Work' is conscious effort aimed at producing benefits for oneself and/or for oneself and others.

Hoyt, K.B. Career education and the handicapped person. Unpublished address. U.S. Office of Education, Washington, D.C., no date, p. 2.

A SCHOOL-BASED CAREER EDUCATION MODEL FOR THE HANDICAPPED


ADULT AND CONTINUING EDUCATION
POST SECONDARY
GRADUATE/ PROFESSIONAL SCHOOL
EXIT FOR PROFESSIONAL JOB
FOUR YEAR UNIVERSITY OR COLLEGE
EXIT FOR PROFESSIONAL, MANAGERIAL, OR SPECIALIZED JOB
EXIT FOR SPECIALIZED OR TECHNICAL JOB
JUNIOR/COMMUNITY COLLEGE OR TECHNICAL EDUCATION
POST-SECONDARY TRAINING
COMMUNITY (RE)HABILITATION FACILITY
EXIT FOR ENTRY LEVEL JOB
SECONDARY
7-12
COLLEGE PREP/ GENERAL EDUCATION
VOCATIONAL/ TECHNICAL OR FINE ARTS EDUCATION
COOPERATIVE EDUCATION OR WORK-STUDY PROGRAM
WORK EVALUATION OR WORK ADJUSTMENT
EXIT FOR ENTRY LEVEL, SEMI-SKILLED, OR SPECIALIZED JOB
EXIT FOR ENTRY LEVEL JOB
EXIT FOR ENTRY LEVEL JOB IF NECESSARY
ELEMENTARY
K-6
VALUES, ATTITUDES, AND HABITS
HUMAN RELATIONSHIPS
OCCUPATIONAL INFORMATION
ACQUISITION OF JOB AND DAILY LIVING SKILLS

Clark, 1979

RECOMMENDED APPROACHES TO DELIVERY OF CAREER EDUCATION INSTRUCTION BASED ON GRADE LEVEL, DEGREE OF HANDICAP, AND INSTRUCTIONAL SETTING AT THE ELEMENTARY LEVEL

	Mildly Handicapped		Moderately to Severely Handicapped*	
	K-3	4-6	K-3	4-6
Regular Class or Resource Room	Infusion and Unit Teaching	Infusion, Unit Teaching and Mini-Courses	Infusion, Unit Teaching and Separate Subjects (Semester Long)	Infusion, Unit Teaching and Separate Subjects (Semester and Year Long)
Special Class	Infusion, Unit Teaching, and Separate Subjects (Semester) Long)	Infusion, Unit Teaching, and Separate Subjects (Semester and Year Long)	Total Curriculum	Total Curriculum

*Moderately or severely handicapped in regular grades or resource rooms will most likely be visually handicapped, auditorially handicapped, and/or learning disabled pupils.

RECOMMENDED APPROACHES TO DELIVERY OF CAREER EDUCATION INSTRUCTION BASED ON GRADE LEVEL, DEGREE OF HANDICAP, AND INSTRUCTIONAL SETTING AT THE SECONDARY LEVEL

	Mildly Handicapped		Moderately to Severely Handicapped*	
	7-9	10-12	7-9	10-12
Regular Class or Resource Room	Infusion Unit Teaching, Mini-Courses, and Separate Subjects (Semester Long)	Infusion Unit Teaching, Mini-Courses, and Separate Subjects (Semester and Year Long)	Infusion, Unit Teaching, Mini-Courses, and Separate Subjects (Semester Long)	Infusion Unit Teaching, and Separate Subjects (Semester and Year Long)
Special Class	Infusion Unit Teaching, and Separate Subjects (Semester and Year Long)	Infusion Unit Teaching, Mini-Courses, and Separate Subjects (Semester and Year Long)	Total Curriculum	Total Curriculum

*Moderately or severely handicapped in regular grades or resource rooms will most likely be visually handicapped, hearing impaired, and/or learning disabled pupils.

CAREER EDUCATION COMPETENCIES
PROJECT PRICE

Dr. Donn E. Brolin, Director
University of Missouri-Columbia

Curriculum Area and Competency

DAILY LIVING SKILLS

1. Managing Family Finances
2. Selecting, Managing and Maintaining a Home
3. Caring for Personal Needs
4. Raising Children, Family Living
5. Buying and Preparing Food
6. Buying and Caring for Clothing
7. Engaging in Civic Activities
8. Utilizing Recreation and Leisure
9. Getting Around the Community

PERSONAL-SOCIAL SKILLS

10. Achieving Self-Awareness
11. Acquiring Self-Confidence
12. Achieving Socially Responsible Behavior
13. Maintaining Good Interpersonal Skills
14. Achieving Independence
15. Achieving Problem-Solving Skills
16. Communicating Adequately With Others

OCCUPATIONAL GUIDANCE AND PREPARATION

17. Knowing and Exploring Occupational Possibilities
18. Selecting and Planning Occupational Choices
19. Exhibiting Appropriate Work Habits and Behaviors
20. Exhibiting Sufficient Physical and Manual Skills
21. Obtaining a Specific Occupational Skill
22. Seeking, Securing, and Maintaining Employment

CAREER EDUCATION GOALS FOR ELEMENTARY LEVEL HANDICAPPED CHILDREN

1. Identify and provide specific instruction in basic concepts of work which provide a basis for attitudes.
2. Provide opportunity for development of work habits.
3. Identify occupational groupings or clusters and integrate them into basic educational skill instruction.
4. Involve children in self-discovery activities.
5. Introduce instruction in problem solving and decision-making.
6. Provide opportunities for pupils to render services to others.
7. Provide opportunities for pupils to observe and interact with selected community workers.
8. Provide opportunity for pupils to acquire some basic psychomotor skills which are prerequisites for certain jobs.
9. Provide instruction in selection and use of leisure time.

CAREER EDUCATION GOALS FOR JUNIOR HIGH SCHOOL HANDICAPPED YOUTH

1. Expose students to a wide range of occupations through exploration of clusters.

2. Provide for "hands-on" experiences in simulated work environments and personal identification with role models from the community.

3. Provide career development instructional centers for individualized learning experiences.

4. Provide extensive career guidance activities.

5. Continue development of goals initiated at the elementary level. If basic competencies in attitudes toward work, work habits, self-awareness, problem-solving, and psycho-motor skills are undeveloped, these should take precedence over goals 1-4.

CAREER EDUCATION GOALS FOR SENIOR HIGH SCHOOL HANDICAPPED YOUTH

1. Provide students with activities that unify basic subject areas with career development concepts and adult living skills.

2. Provide every student with intensive preparation in a selected occupational cluster or in a specific job in preparation for job entry and/or further training.

3. Provide extensive guidance and counseling services for every student.

4. Provide placement assistance services for all students.

CAREER EDUCATION IMPLEMENTATION TASKS FOR CLASSROOM OR RESOURCE ROOM TEACHERS OF EXCEPTIONAL CHILDREN

1. Integrate, to the fullest extent possible, the assumptions of career education for the handicapped into their instructional activities.

2. Help pupils develop, clarify, and assimilate personally meaningful attitudes, values, and habits.

3. Help pupils develop and demonstrate behaviors reflecting positive human relationships.

4. Help pupils acquire information on occupational alternatives.

5. Help pupils acquire cognitive and psychomotor skills needed for or related to actual job and/or daily living performance.

6. Use or devise methods and materials designed to help pupils understand and appreciate the career development implications of whatever subject matter is being taught.

7. Use career oriented methods and materials in the instructional program, where appropriate, as one means of motivation for learning.

SUGGESTIONS FOR FAMILIES WITH HANDICAPPED MEMBERS IN HELPING THEM ACHIEVE CAREER DEVELOPMENT COMPETENCIES

1. Emphasize the development of coordination, dexterity, balance, and strengths.
2. Provide a home workshop so construction/repair activities can be learned.
3. Assign specific jobs/duties around home.
4. Identify jobs performed by various workers, visit job sites, and discuss them in detail at home.
5. Provide a variety of family projects and activities to develop leisure, recreation, and social skills.
6. Insist that the individual make his own decisions, investigate alternatives, and understand consequences.
7. Provide positive reinforcement for successful work and opportunities to participate in family decisions.
8. Work closely with school personnel toward achievement of educational goals.
9. Demonstrate importance of values in decision-making and model positive attitudes and habits.
10. Stress the importance of positive human relationships and self-control.

Based largely on suggestions presented in Brolin & Kokaska (1979, p. 207), *Career Education for Handicapped Children and Youth*, Columbus, Ohio: Charles E. Merrill.

PREDICTIONS REGARDING HANDICAPPED YOUTH LEAVING PUBLIC SCHOOLS, 1973-1977*

Of the 2.5 million handicapped youth who will leave our school systems in the next four years:

525,000 (21%)
will be either *fully employed* or enrolled in higher education

1,000,000 (40%)
will be *underemployed* and at the poverty level

200,000 (8%)
will be in their home community and idle much of the time

650,000 (26%)
will be *unemployed* and on welfare

75,000 (3%)
will be totally dependent and institutionalized

*From Dr. Samuel C. Barone's paper presented to a Forum of National Organizations sponsored by the Vocational Evaluation and Work Adjustment Association, the National Rehabilitation Association, and the President's Committee for the Employment of the Handicapped, October 25, 1973.